

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:  
sssptal604dxj  
LOGINID:  
PASSWORD:  
TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Apr 08 "Ask CAS" for self-help around the clock  
NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 4 Apr 09 ZDB will be removed from STN  
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB  
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;  
saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
NEWS 15 Jul 30 NETFIRST to be removed from STN  
NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,  
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:16:15 ON 05 SEP 2002

=> FIL REGISTRY

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 14:16:36 ON 05 SEP 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2002 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 4 SEP 2002 HIGHEST RN 446821-48-3

DICTIONARY FILE UPDATES: 4 SEP 2002 HIGHEST RN 446821-48-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES  
for more information. See STNote 27, Searching Properties in the CAS  
Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> 1.3.5-hexahydrotriazine

1.3.5-HEXAHYDROTRIAZINE IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> 1,3,5 hexahydrotriazine/cn

1,3,5 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> hexahydrotriazine

HEXAHYDROTRIAZINE IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s hexahydrotriazine

L1 30 HEXAHYDROTRIAZINE

=> d l1 1-30

L1 ANSWER 1 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 150660-26-7 REGISTRY

CN 1,3,5-Triazine, 1,3,5-tris[3-(ethenyloxy)propyl]hexahydro- (9CI) (CA  
INDEX NAME)

OTHER NAMES:

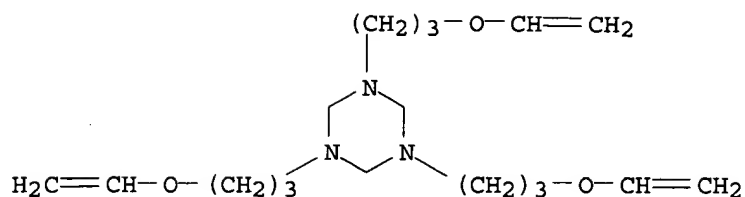
CN 1,3,5-Tris(3-vinyloxypropyl)hexahydrotriazine

FS 3D CONCORD

MF C18 H33 N3 O3

SR CA

LC STN Files: CA, CAPLUS



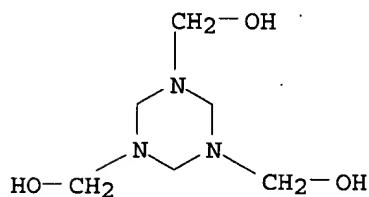
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 2 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 142826-34-4 REGISTRY  
 CN Urea, polymer with formaldehyde, phenol and 1,3,5-triazine-1,3,5(2H,4H,6H)-trimethanol (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-trimethanol, polymer with formaldehyde, phenol and urea (9CI)  
 CN Formaldehyde, polymer with phenol, 1,3,5-triazine-1,3,5(2H,4H,6H)-trimethanol and urea (9CI)  
 CN Phenol, polymer with formaldehyde, 1,3,5-triazine-1,3,5(2H,4H,6H)-trimethanol and urea (9CI)  
 OTHER NAMES:  
 CN **Formaldehyde-phenol-1,3,5-tri(hydroxymethyl)-1,3,5-hexahydrotriazine-urea copolymer**  
 MF (C6 H15 N3 O3 . C6 H6 O . C H4 N2 O . C H2 O)x  
 CI PMS  
 PCT Amino resin, Phenolic resin, Polyother  
 SR CA  
 LC STN Files: CA, CAPLUS

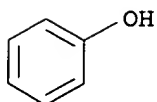
CM 1

CRN 79876-19-0  
 CMF C6 H15 N3 O3



CM 2

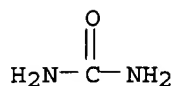
CRN 108-95-2  
 CMF C6 H6 O



CM 3

CRN 57-13-6

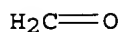
CMF C H4 N2 O



CM 4

CRN 50-00-0

CMF C H2 O



2 REFERENCES IN FILE CA (1967 TO DATE)

2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 3 OF 30 REGISTRY COPYRIGHT 2002 ACS

RN 126513-10-8 REGISTRY

CN 2-Propenoic acid, polymer with hexahydro-1,3,5-tris(1-oxo-2-propenyl)-  
1,3,5-triazine and 2-propenamide, sodium salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine, hexahydro-1,3,5-tris(1-oxo-2-propenyl)-, polymer with  
2-propenamide and 2-propenoic acid, sodium salt (9CI)

CN 2-Propenamide, polymer with hexahydro-1,3,5-tris(1-oxo-2-propenyl)-1,3,5-  
triazine and 2-propenoic acid, sodium salt (9CI)

OTHER NAMES:

CN **Acrylic acid-N,N',N''-triacyloylhexahydrotriazine-acrylamide  
copolymer sodium salt**

MF (C12 H15 N3 O3 . C3 H5 N O . C3 H4 O2)x . x Na

PCT Polyacrylic

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 89593-01-1

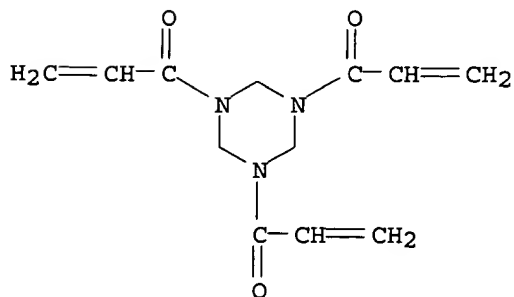
CMF (C12 H15 N3 O3 . C3 H5 N O . C3 H4 O2)x

CCI PMS

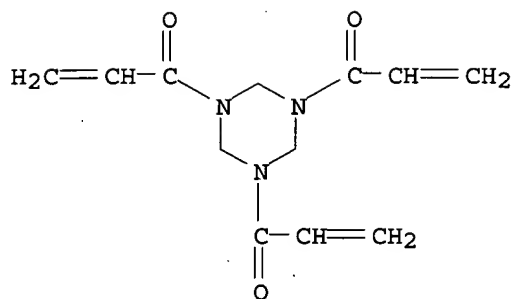
CM 2

CRN 959-52-4

CMF C12 H15 N3 O3

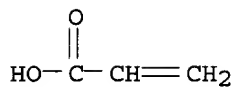






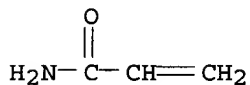
CM 3

CRN 79-10-7  
CMF C3 H4 O2



CM 4

CRN 79-06-1  
CMF C3 H5 N O

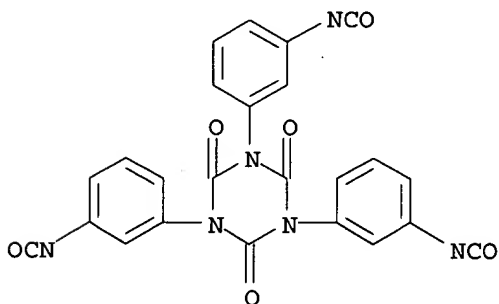


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 4 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 126198-32-1 REGISTRY  
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(3-isocyanatophenyl)-  
(9CI) (CA INDEX NAME)

OTHER NAMES:

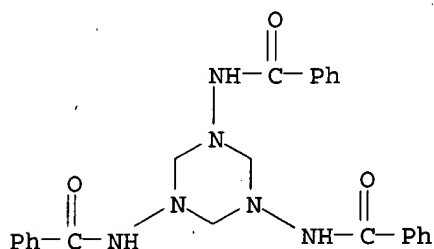
CN 1,3,5-Tris(3-isocyanatophenyl)-2,4,6-trioxohexahydrotriazine  
FS 3D CONCORD  
MF C24 H12 N6 O6  
SR CA  
LC STN Files: CA, CAPLUS



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

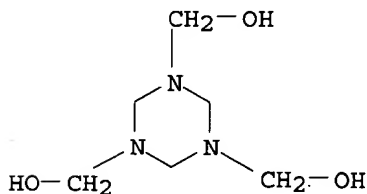
L1 ANSWER 5 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 108737-09-3 REGISTRY  
CN Benzamide, N,N',N''-1,3,5-triazine-1,3,5(2H,4H,6H)-triyltris-, monohydrate  
(9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 1,3,5-Tribenzamido-1,3,5-hexahydrotriazine monohydrate  
MF C24 H24 N6 O3 . H2 O  
SR CA  
LC STN Files: CA, CAPLUS  
CRN (1485-62-7)



● H<sub>2</sub>O

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

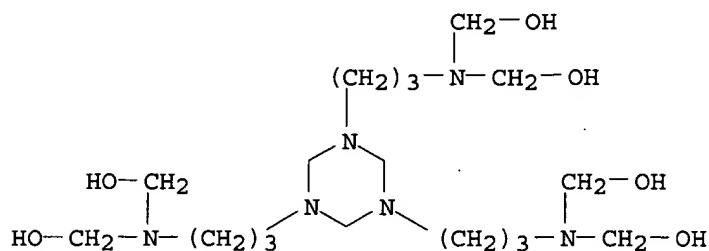
L1 ANSWER 6 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 79876-19-0 REGISTRY  
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-trimethanol (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 1,3,5-Hexahydrotriazine-1,3,5-trimethanol  
CN 1,3,5-Tri(hydroxymethyl)-1,3,5-hexahydrotriazine  
FS 3D CONCORD  
MF C6 H15 N3 O3  
CI COM  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, USPATFULL  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

8 REFERENCES IN FILE CA (1967 TO DATE)  
8 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 7 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 63596-82-7 REGISTRY  
 CN Methanol, [1,3,5-triazine-1,3,5(2H,4H,6H)-triyltris(3,1-propanediyl)nitrido]hexakis- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 1,3,5-Tris(N,N-dimethanolaminopropyl)-s-hexahydrotriazine  
 FS 3D CONCORD  
 MF C18 H42 N6 O6  
 LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL



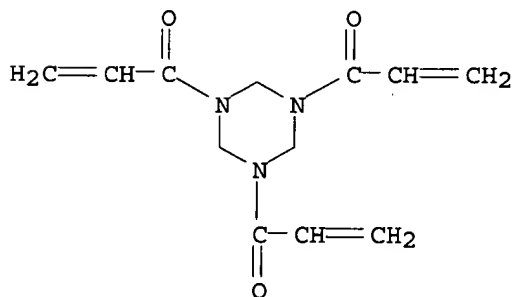
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

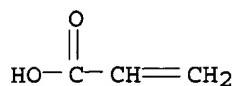
L1 ANSWER 8 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 58731-04-7 REGISTRY  
 CN 2-Propenoic acid, polymer with hexahydro-1,3,5-tris(1-oxo-2-propenyl)-1,3,5-triazine (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1,3,5-Triazine, hexahydro-1,3,5-tris(1-oxo-2-propenyl)-, polymer with 2-propenoic acid (9CI)  
 OTHER NAMES:  
 CN Acrylic acid-1,3,5-triacryloylhexahydrotriazine copolymer  
 CN Acrylic acid-hexahydro-1,3,5-triacryloyltriazine polymer  
 MF (C12 H15 N3 O3 . C3 H4 O2)x  
 CI PMS, COM  
 PCT Polyacrylic  
 LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

CM 1

CRN 959-52-4  
 CMF C12 H15 N3 O3



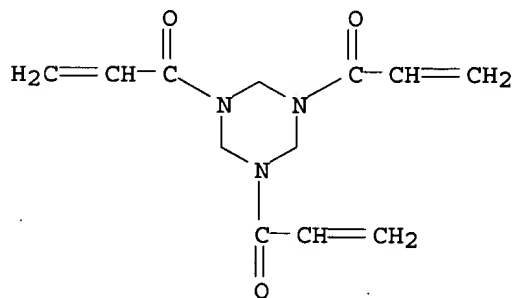
CRN 79-10-7  
CMF C3 H4 O2



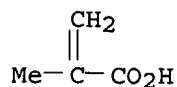
9 REFERENCES IN FILE CA (1967 TO DATE)  
9 REFERENCES IN FILE CAPLUS (1967 TO DATE)

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L1 ANSWER 9 OF 30 REGISTRY COPYRIGHT 2002 ACS
RN 58145-42-9 REGISTRY
CN 2-Propenoic acid, 2-methyl-, polymer with hexahydro-1,3,5-tris(1-oxo-2-
propenyl)-1,3,5-triazine (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,3,5-Triazine, hexahydro-1,3,5-tris(1-oxo-2-propenyl)-, polymer with
2-methyl-2-propenoic acid (9CI)
OTHER NAMES:
CN Biosorb T
CN Hexahydro-1,3,5-triacryloyltriazine-methacrylic acid copolymer
CN Hexahydro-1,3,5-triacryloyltriazine-methacrylic acid polymer
CN KMT-M
CN Methacrylic acid-1,3,5-triacryloylhexahydrotriazine copolymer
MF (C12 H15 N3 O3 . C4 H6 O2)x
CI PMS, COM
PCT Polyacrylic
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL
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CRN 959-52-4  
CMF C12 H15 N3 O3



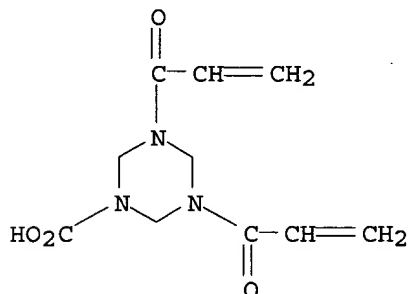
CRN 79-41-4  
CMF C4 H6 O2



23 REFERENCES IN FILE CA (1967 TO DATE)

23 REFERENCES IN FILE CAPLUS (1967 TO DATE)

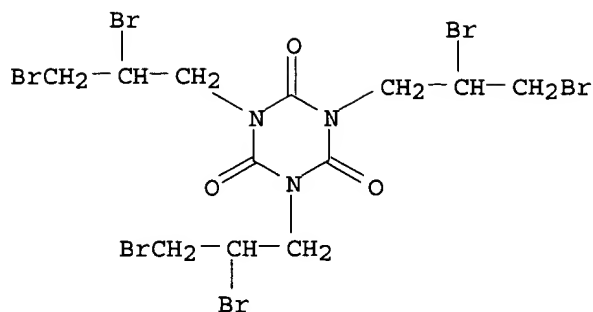
L1 ANSWER 10 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 53462-02-5 REGISTRY  
 CN 1,3,5-Triazine-1(2H)-carboxylic acid, tetrahydro-3,5-bis(1-oxo-2-propenyl)-  
 (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 1,3-Diacryloyl-5-carboxyhexahydro-s-triazine  
 CN 1,3-Diacryloyl-5-carboxyhexahydrotriazine  
 FS 3D CONCORD  
 MF C10 H13 N3 O4  
 LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

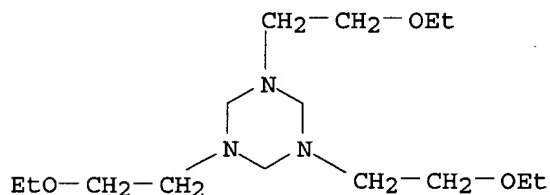
L1 ANSWER 11 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 52434-90-9 REGISTRY  
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2,3-dibromopropyl)-  
 (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 1,3,5-Tris(2,3-dibromopropyl) isocyanurate  
 CN 1,3,5-Tris(2,3-dibromopropyl)-2,4,6-trioxohexahydro-s-triazine  
 CN 1,3,5-Tris(2,3-dibromopropyl)-2,4,6-trioxohexahydrotriazine  
 CN AFR 1002  
 CN FC 140R  
 CN TAIC 6B  
 CN TBC  
 CN TBC (fireproofing agent)  
 CN Tri(2,3-dibromopropyl) isocyanurate  
 CN Tris(2,3-dibromopropyl) isocyanurate  
 FS 3D CONCORD  
 DR 162355-16-0  
 MF C12 H15 Br6 N3 O3  
 CI COM  
 LC STN Files: CA, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, MSDS-OHS, PIRA,  
 TOXCENTER, USPATFULL  
 Other Sources: DSL\*\*, EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

162 REFERENCES IN FILE CA (1967 TO DATE)  
162 REFERENCES IN FILE CAPLUS (1967 TO DATE)

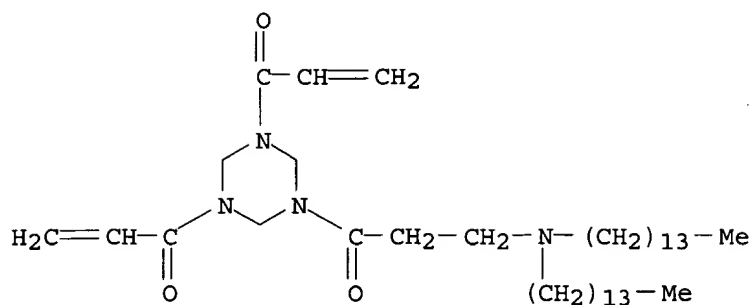
L1 ANSWER 12 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 52183-63-8 REGISTRY  
CN 1,3,5-Triazine, 1,3,5-tris(2-ethoxyethyl)hexahydro- (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN **1,3,5-Tris(2-ethoxyethyl)-s-hexahydrotriazine**  
FS 3D CONCORD  
MF C15 H33 N3 O3  
CI COM  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, TOXCENTER,  
USPATFULL  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

5 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
5 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 13 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 40677-81-4 REGISTRY  
CN 1,3,5-Triazine, 1-[3-(ditetradecylamino)-1-oxopropyl]hexahydro-3,5-bis(1-oxo-2-propenyl)- (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN **Ditetradecylaminopropionylbisacryloylhexahydrotriazine**  
FS 3D CONCORD  
MF C40 H74 N4 O3  
LC STN Files: CA, CAPLUS



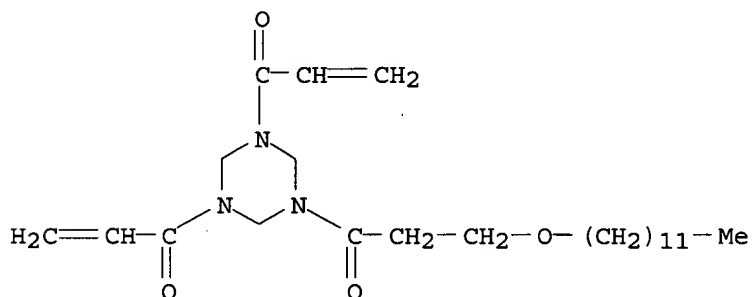
**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 14 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 40677-80-3 REGISTRY  
CN 1,3,5-Triazine, 1-[3-(dodecyloxy)-1-oxopropyl]hexahydro-3,5-bis(1-oxo-2-propenyl)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN **Dodecyloxypropionylbisacryloylhexahydrotriazine**  
FS 3D CONCORD  
MF C24 H41 N3 O4  
LC STN Files: CA, CAPLUS



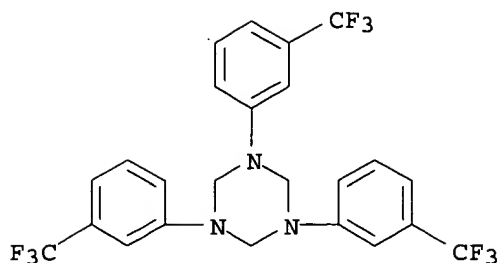
**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 15 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 38335-59-0 REGISTRY  
CN 1,3,5-Triazine, hexahydro-1,3,5-tris[3-(trifluoromethyl)phenyl]- (9CI)  
(CA INDEX NAME)

OTHER NAMES:

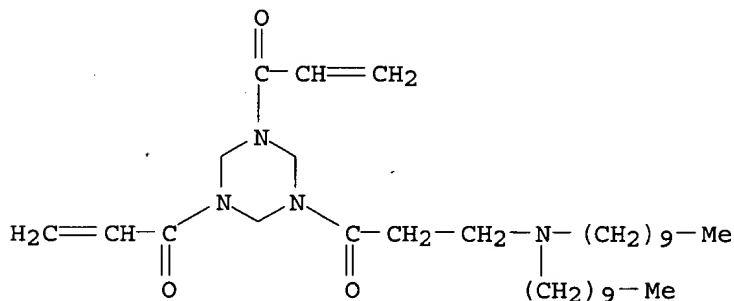
CN **1,3,5-Tris(m-trifluoromethylphenyl)hexahydrotriazine**  
FS 3D CONCORD  
MF C24 H18 F9 N3  
LC STN Files: CA, CAPLUS, CHEMCATS, IFICDB, IFIPAT, IFIUDB, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 16 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 37717-56-9 REGISTRY  
CN 1,3,5-Triazine, 1-[3-(didecylamino)-1-oxopropyl]hexahydro-3,5-bis(1-oxo-2-propenyl)- (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN (Didecylaminopropionyl)bisacryloylhexahydrotriazine  
CN 1,3-Diacryloyl-5-[3-(didecylamino)propionyl]hexahydro-s-triazine  
FS 3D CONCORD  
MF C32 H58 N4 O3  
LC STN Files: CA, CAPLUS

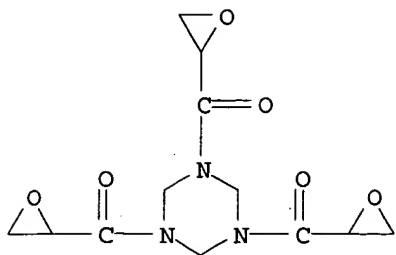


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 17 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 34278-82-5 REGISTRY  
CN 1-Propanone, 1,1',1''-(hexahydro-s-triazine-2,4,6-triyl)tris[2,3-epoxy- (8CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Triacryloylhexahydrotriazine triepoxide  
FS 3D CONCORD  
MF C12 H15 N3 O6  
CI COM  
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB

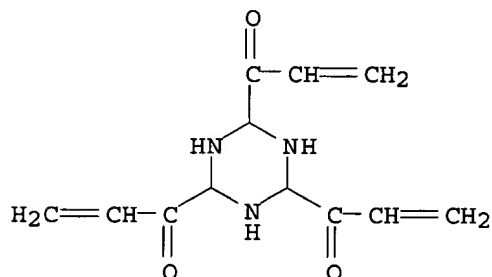




\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

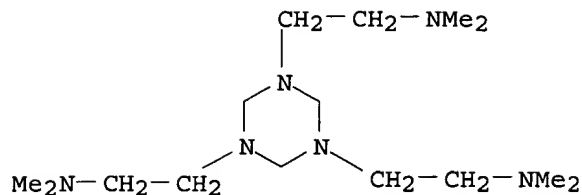
L1 ANSWER 18 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 31119-52-5 REGISTRY  
CN 2-Propen-1-one, 1,1',1''-(hexahydro-1,3,5-triazine-2,4,6-triyl)tris- (9CI)  
(CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN s-Triazine, 2,4,6-triacryloylhexahydro- (8CI)  
OTHER NAMES:  
CN **2,4,6-Triacrylohexahydrotriazine**  
FS 3D CONCORD  
DR 177969-30-1  
MF C12 H15 N3 O3  
CI COM  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, CHEMCATS  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

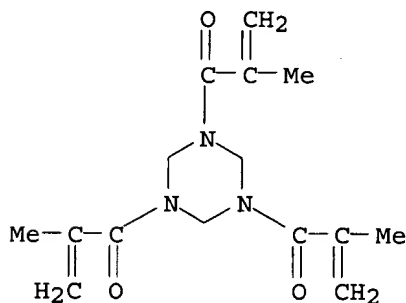
L1 ANSWER 19 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 30564-49-9 REGISTRY  
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanamine, N,N,N',N',N'',N''-hexamethyl-  
(9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN s-Triazine, 1,3,5-tris[2-(dimethylamino)ethyl]hexahydro- (8CI)  
OTHER NAMES:  
CN **1,3,5-Tris[2-(dimethylamino)ethyl]hexahydrotriazine**  
CN N,N',N''-Tris[(dimethylamino)ethyl]hexahydro-s-triazine  
FS 3D CONCORD  
MF C15 H36 N6  
LC STN Files: BEILSTEIN\*, CA, CAPLUS, CHEMCATS, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

9 REFERENCES IN FILE CA (1967 TO DATE)  
9 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 20 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 27325-67-3 REGISTRY  
CN 1,3,5-Triazine, hexahydro-1,3,5-tris(2-methyl-1-oxo-2-propenyl)- (9CI)  
(CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN s-Triazine, hexahydro-1,3,5-trimethacryloyl- (6CI, 7CI, 8CI)  
OTHER NAMES:  
CN 1,3,5-Trimethacryloylhexahydro-s-triazine  
CN 1,3,5-Tris(methacryloyl)hexahydrotriazine  
CN Hexahydro-1,3,5-trimethacryloyl-s-triazine  
FS 3D CONCORD  
MF C15 H21 N3 O3  
CI COM  
LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, IFICDB, IFIPAT, IFIUDB,  
USPATFULL  
(\*File contains numerically searchable property data)

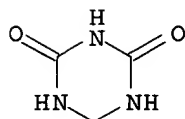


**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

11 REFERENCES IN FILE CA (1967 TO DATE)  
11 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 21 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 27032-78-6 REGISTRY  
CN 1,3,5-Triazine-2,4(1H,3H)-dione, dihydro- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN s-Triazine-2,4(1H,3H)-dione, dihydro- (6CI, 7CI, 8CI)  
OTHER NAMES:  
CN 2,4-Dioxohexahydro-1,3,5-triazine  
CN 5,6-Dihydro-1,3,5-triazine-2,4(1H,3H)-dione  
CN CKB 1130

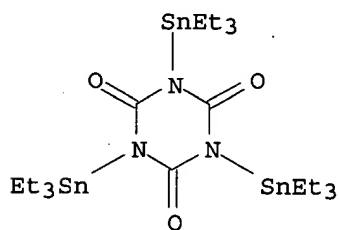
CN DHT  
 CN **Dioxohexahydrotriazine**  
 FS 3D CONCORD  
 DR 135676-68-5  
 MF C3 H5 N3 O2  
 CI COM  
 LC STN Files: AGRICOLA, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS,  
 CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, DETHERM\*, EMBASE, IFICDB,  
 IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, TOXCENTER, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

162 REFERENCES IN FILE CA (1967 TO DATE)  
 8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 162 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 22 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 25826-18-0 REGISTRY  
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(triethylstannyl)- (9CI)  
 (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN s-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(triethylstannyl)- (8CI)  
 OTHER NAMES:  
 CN 1,3,5-Tris(triethyltin)-s-triazine-2,4,6-(1H,3H,5H)-trione  
 CN **1,3,5-Tris(triethyltin)hexahydrotriazine-2,4,6-trione**  
 MF C21 H45 N3 O3 Sn3  
 LC STN Files: BEILSTEIN\*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB  
 (\*File contains numerically searchable property data)



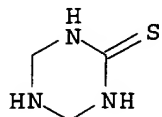
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1967 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 23 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 22052-04-6 REGISTRY  
 CN 1,3,5-Triazine-2(1H)-thione, tetrahydro- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN s-Triazine-2(1H)-thione, tetrahydro- (7CI, 8CI)

OTHER NAMES:

CN **2-Thioxohexahydrotriazine**  
 FS 3D CONCORD  
 MF C3 H7 N3 S  
 LC STN Files: CA, CAOLD, CAPLUS, CHEMCATS, MEDLINE, RTECS\*, TOXCENTER  
 (\*File contains numerically searchable property data)



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

8 REFERENCES IN FILE CA (1967 TO DATE)  
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 8 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

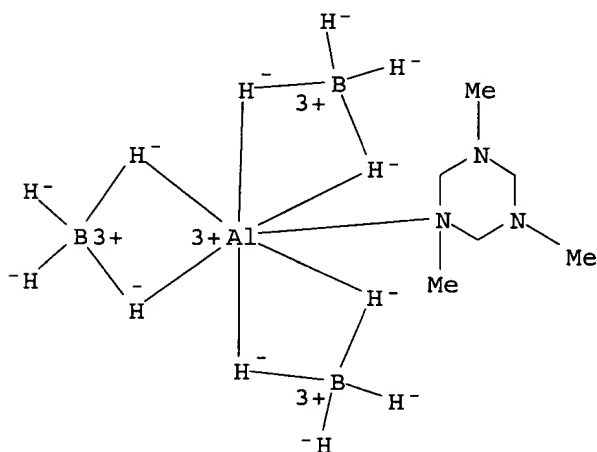
L1 ANSWER 24 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 19567-40-9 REGISTRY  
 CN s-Triazine, hexahydro-1,3,5-trimethyl-, compd. with aluminum tetrahydroborate(1-) (8CI) (CA INDEX NAME).

OTHER CA INDEX NAMES:

CN Borate(1-), tetrahydro-, aluminum, compd. with hexahydro-1,3,5-trimethyl-s-triazine (8CI)

OTHER NAMES:

CN **1,3,5-Trimethylhexahydrotriazine-aluminum borohydride compd.**  
 MF C6 H27 Al B3 N3  
 CI CCS  
 LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB

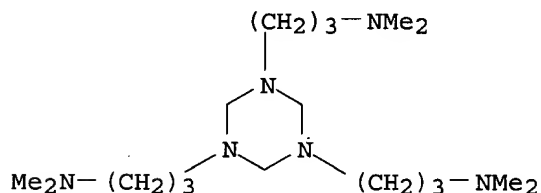


1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 25 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 15875-13-5 REGISTRY  
 CN 1,3,5-Triazine-1,3,5-(2H,4H,6H)-tripropanamine, N,N,N',N',N'',N'''-hexamethyl- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN s-Triazine, 1,3,5-tris[3-(dimethylamino)propyl]hexahydro- (7CI, 8CI)

OTHER NAMES:

CN 1,3,5-Tris(N,N-dimethyl-3-aminopropyl)-s-hexahydrotriazine  
 CN 1,3,5-Tris[3-(dimethylamino)propyl]-s-hexahydrotriazine  
 CN 1,3,5-Tris[3-(dimethylamino)propyl]hexahydro-1,3,5-triazine  
 CN Desmorapid  
 CN Kaolizer 14  
 CN Minico R 141  
 CN N,N',N''-Tris(3-dimethylaminopropyl)hexahydro-s-triazine  
 CN N,N',N''-Tris(dimethylaminopropyl)-s-hexahydrotriazine  
 CN N,N',N''-Tris(dimethylaminopropyl)-sym-hexahydrotriazine  
 CN Niax C 41  
 CN Polycat 41  
 CN Polycat P 41  
 CN R 141  
 CN Toyocat TRC  
 CN Tris(dimethylaminopropyl)-s-hexahydrotriazine  
 FS 3D CONCORD  
 MF C18 H42 N6  
 CI COM  
 LC STN Files: BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST,  
 CIN, CSCHEM, IFICDB, IFIPAT, IFIUDB, PIRA, RTECS\*, TOXCENTER, USPAT2,  
 USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

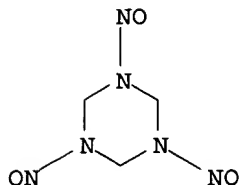


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

191 REFERENCES IN FILE CA (1967 TO DATE)  
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 191 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 26 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 13980-04-6 REGISTRY  
 CN 1,3,5-Triazine, hexahydro-1,3,5-trinitroso- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN s-Triazine, hexahydro-1,3,5-trinitroso- (6CI, 7CI, 8CI)  
 OTHER NAMES:  
 CN 1,3,5-Trinitroso-1,3,5-triazacyclohexane  
 CN 1,3,5-Trinitrosohexahydro-s-triazine  
 CN 1,3,5-Trisnitrosohexahydro-1,3,5-triazine  
 CN Cyclotrimethylenetrinitrosamine  
 CN Hexahydro-1,3,5-trinitroso-1,3,5-triazine  
 CN Hexahydro-1,3,5-trinitroso-s-triazine  
 CN N,N',N''-Trinitroso-1,3,5-hexahydrotriazine  
 CN Nitrosogen  
 CN TRDX  
 CN Trinitrosotrimethylenetriamine  
 FS 3D CONCORD  
 DR 53144-66-4  
 MF C3 H6 N6 O3  
 LC STN Files: ANABSTR, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT,

CHEMLIST, DETHERM\*, NIOSHTIC, RTECS\*, TOXCENTER, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

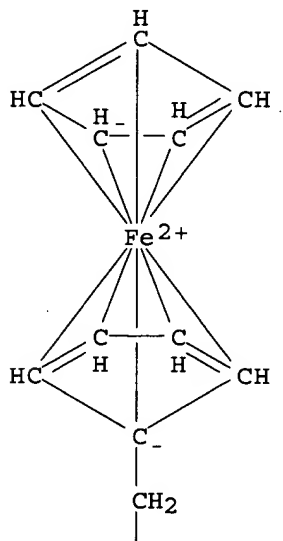


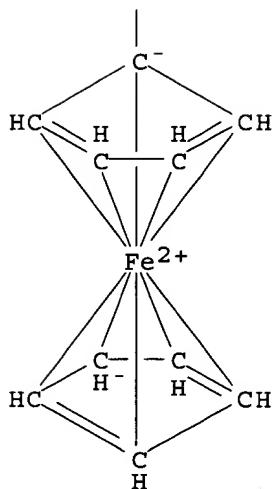
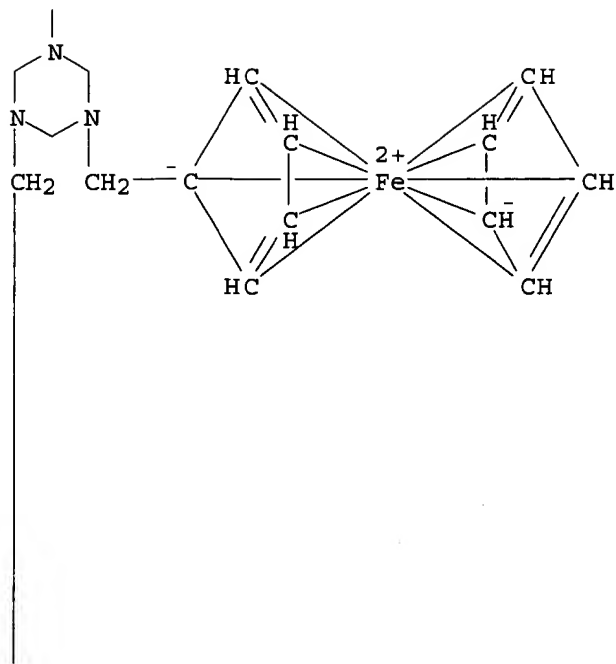
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

101 REFERENCES IN FILE CA (1967 TO DATE)  
 102 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 27 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 11070-74-9 REGISTRY  
 CN Ferrocene, 1,1',1''-[(1,3,5-triazine-1,3,5(2H,4H,6H) -  
 triyl)tris(methylene)]tris- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN s-Triazine, 1,3,5-tris(ferrocenylmethyl)hexahydro- (8CI)  
 OTHER NAMES:  
 CN **1,3,5-Tris(ferrocenylmethyl)hexahydrotriazine**  
 MF C36 H39 Fe3 N3  
 CI CCS  
 LC STN Files: CA, CAPLUS

PAGE 1-A

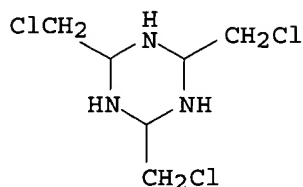




1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 28 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 7038-17-7 REGISTRY  
CN 1,3,5-Triazine, 2,4,6-tris(chloromethyl)hexahydro-. (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN s-Triazine, 2,4,6-tris(chloromethyl)hexahydro- (7CI, 8CI)  
OTHER NAMES:  
CN 2,4,6-Tris(chloromethyl)-1,3,5-hexahydrotriazine  
FS 3D CONCORD

MF C6 H12 Cl3 N3  
LC STN Files: CA, CAOLD, CAPLUS



**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 29 OF 30 REGISTRY COPYRIGHT 2002 ACS  
RN 959-52-4 REGISTRY  
CN 1,3,5-Triazine, hexahydro-1,3,5-tris(1-oxo-2-propenyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN s-Triazine, 1,3,5-triacryloylhexahydro- (6CI, 7CI, 8CI)

OTHER NAMES:

CN 1,3,5-Triacryloyl-s-triazine  
CN 1,3,5-Triacryloylhexahydro-1,3,5-triazine  
CN 1,3,5-Triacryloylhexahydro-s-triazine  
CN **1,3,5-Triacryloylhexahydrotriazine**  
CN 1,3,5-Triacryloyltrimethylenetriamine  
CN 1,3,5-Tris(acryloyl)hexahydro-s-triazine  
CN DU 801  
CN Fixierer P  
CN Fixing Agent P  
CN Hexahydro-1,3,5-triacryloyl-s-triazine  
CN Hexahydrotris(acryloyl)-s-triazine  
CN TAF  
CN TAF (crosslinking agent)  
CN **Tri(N-acryloyl)hexahydrotriazine**  
CN Triacrylformal  
CN Triacryloylhexahydro-s-triazine  
CN **Triacryloylhexahydrotriazine**  
CN Triacryloylperhydrotriazine  
CN Tris(acryloyl)hexahydro-s-triazine  
CN **Tris(N-acryloyl)hexahydrotriazine**

FS 3D CONCORD

DR 166516-55-8, 136510-67-3, 85996-24-3, 31426-62-7

MF C12 H15 N3 O3

CI COM

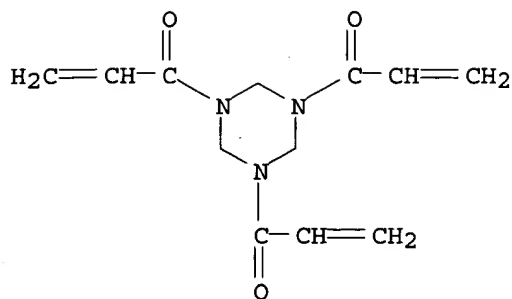
LC STN Files: AGRICOLA, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, CSNB, IFICDB, IFIPAT, IFIUDB, MEDLINE, NIOSHTIC, RTECS\*, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

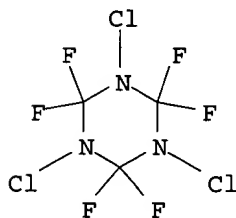




\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

350 REFERENCES IN FILE CA (1967 TO DATE)  
 27 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 350 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 30 OF 30 REGISTRY COPYRIGHT 2002 ACS  
 RN 832-34-8 REGISTRY  
 CN 1,3,5-Triazine, 1,3,5-trichloro-2,2,4,4,6,6-hexafluorohexahydro- (9CI)  
 (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN s-Triazine, 1,3,5-trichloro-2,2,4,4,6,6-hexafluorohexahydro- (7CI, 8CI)  
 OTHER NAMES:  
 CN 1,3,5-Trichloro-2,2,4,4,6,6-hexafluorohexahydrotriazine  
 FS 3D CONCORD  
 MF C3 Cl3 F6 N3  
 LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

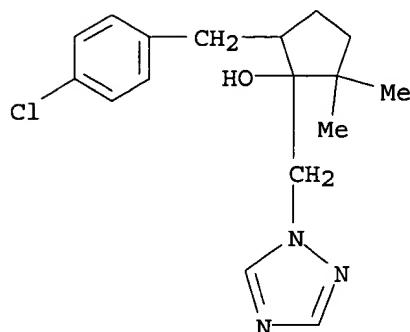
2 REFERENCES IN FILE CA (1967 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s metconazole/cn  
 L2 1 METCONAZOLE/CN

=> d 12.

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS  
 RN 125116-23-6 REGISTRY  
 CN Cyclopentanol, 5-[(4-chlorophenyl)methyl]-2,2-dimethyl-1-(1H-1,2,4-triazol-1-ylmethyl)- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Caramba

CN Metconazole  
FS 3D CONCORD  
MF C17 H22 Cl N3 O  
CI COM  
SR CA  
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CBNB,  
CHEMCATS, CHEMLIST, CIN, CSCHM, MRCK\*, PROMT, TOXCENTER, ULIDAT,  
USPATFULL  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

89 REFERENCES IN FILE CA (1967 TO DATE)  
31 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
90 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1,2-Benzisothiazol-3(2H)-one 2682-20-4, 2-Methyl-4-isothiazolin-3-one 3064-70-8, Bis(trichloromethyl)sulfone 10222-01-2, 2,2-Dibromo-3-nitrilopropionamide 25376-38-9, Tribromophenol 26172-55-4, 5-Chloro-2-methyl-4-isothiazolin-3-one 55406-53-6 129348-50-1

(microbicide in microbicidal compns. contg. propiconazole and N-alkyl heterocycles)

L17 ANSWER 5 OF 25 USPATFULL

ACCESSION NUMBER: 2003:26329 USPATFULL  
TITLE: **Water**-miscible cooling lubricant concentrate  
INVENTOR(S): Theis, Heinz Gerhard, Westheim, GERMANY, FEDERAL REPUBLIC OF  
Schwab, Rudiger, Gornheimertal, GERMANY, FEDERAL REPUBLIC OF  
PATENT ASSIGNEE(S): Fuchs Petrolub AG, Mannheim, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6511946	B1	20030128
	WO 2000006675		20000210
APPLICATION INFO.:	US 2001-744592		20010312 (9)
	WO 1999-EP3990		19990610

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19833894	19980728
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	McAvoy, Ellen M.	
LEGAL REPRESENTATIVE:	Wenderoth, Lind & Ponack, L.L.P.	
NUMBER OF CLAIMS:	13	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	387	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI **Water**-miscible cooling lubricant concentrate  
AB Described is a **water**-miscible cooling lubricant concentrate which comprises natural or synthetic mineral oils, emulsifying agents, corrosion protection additives, solubilizers, means of preservation, metal. . .  
SUMM Subject matter of the invention is a **water**-miscible cooling lubricant concentrate which mixed with **water** is distinguished by excellent functional properties in metal cutting and non-cutting metal working as well as also through its especially. . .  
SUMM . . . the case of non-cutting forming such as rolling, deep-drawing or cold impact forming. According to DIN 51385 one differentiates between **water**-miscible and **water**-mixed cooling lubricants. By the term "**water**-mixed" is understood the final state of the ready medium, most frequently in the form of an oil-in-**water** emulsion, and by "**water**-miscible" is understood the concentrate of the cooling lubricant.  
SUMM **Water**-mixed cooling lubricants are produced by the user by mixing the concentrate with **water**. As an emulsion, solution or also in concentrated form its main purpose in metal working is the cooling, the lubrication. . . of removed material generated by the multiplicity of production operations such as turning, drilling, milling, grinding etc. In addition, the **water**-mixed cooling lubricant meets a multiplicity of further secondary tasks, such as keeping free of debris the systems and lending [anti]corrosion. . .  
SUMM Depending on the application concentration and the type of cooling lubricant, conventionally used **water**-mixed cooling lubricants have a pH value between 8.2 and 9.4, which only in exceptional cases can

be still higher. Of. . . relatively long exposure times the operator of the metal processing machine may develop skin problems. Lowering the pH value of **water**-mixed cooling lubricants to the point of neutrality has so far been found to be impossible since in that case the high requirements made of the rust inhibition effect of **water**-mixed cooling lubricants can no longer be met. After the working in cooling lubricants, it is generally not customary for reasons. . . rust in the wet state. For testing the effect of the rust protection during development and also while checking the **water**-mixed cooling lubricants, in general the test is performed using cast-iron turnings according to DIN 51360-1 and -2. This test demonstrates. . . that the danger of rust formation on the worked metal part is greater the further the pH value of the **water**-mixed cooling lubricant shifts away from the alkaline in the direction toward the neutral pH range.

SUMM The task was therefore posed of providing a **water**-mixed cooling lubricant whose pH value is as close as feasible to the neutral point and nevertheless does not lead to. . .

SUMM This task is solved through a **water**-miscible cooling lubricant concentrate which comprises natural or synthetic mineral oils, emulsifying agents, corrosion protection additives, solubilizers, means of preservation, metal. . .

SUMM . . . alcohol propoxylates, sugar esters, neopentyl glycol esters, pentaerythritol esters, 2-ethyl hexyl esters and trimethylolpropane esters for the production of the **water**-miscible cooling lubricant concentrate.

SUMM . . . In practice, higher service life of the cooling lubricant is attained and consequently its economy is improved. The markedly increased **biocidal** activity of boric acid compounds, which is primarily observed in the low pH range and which can be explained by. . . or thiadiazoles, wherein the corrosion protection means is to be added in proportions of 5 to 25% by weight. A **water**-mixed cooling lubricant provided with said corrosion protection additives, even at a pH value between 7.0 and 7.5 in aqueous solution,. . .

SUMM . . . that through the low pH value and the selection of the base emulsifying agents and corrosion protection additives necessitated, thereby, **biocidal** compounds, otherwise not provided with satisfactory stability, retain a stability of the active substance of markedly greater than 95% even under long storage times and increased temperature. Among these compounds are counted primarily 3-iodo-2-propinyl-butylcarbamate, **methylothiazolinone** and other **isothiazolinone** derivatives..

SUMM . . . in practice with nitrosating substances such as nitrite, which is formed through bacterial activity from the nitrate of the mixture **water**, react to form carcinogenic nitrosamines, and whose formation takes place as a function of the pH value in particular in. . .

SUMM . . . lubricant concentrate does not separate into several phases. For that reason, solubilizers must be added to the concentrate. Apart from **water**, glycols, such as ethylene glycol and especially butyltriglycol, are suitable for this purpose, in addition also straight-chain and branched fatty. . .

SUMM In general the **water**-mixed cooling lubricant is a good nutrient medium for microorganisms. Increased contamination with bacteria, **fungi** and yeasts leads to chemical changes of the emulsion components and affects the usability of the **water**-mixed cooling lubricant. If microorganisms injurious to health are introduced, for example coliform bacteria, serious effects on the health of the workers may result. For this reason providing the cooling lubricant concentrate with corresponding **biocidal** or **fungicidal** compounds is most frequently indispensable.

SUMM . . . polymerize through to form ineffective polyurea derivatives even in relatively high concentrations and subsequently are thus not longer available as **biocidal** agent or cause problems due to

L11 ANSWER 1 OF 16 USPATFULL

ACCESSION NUMBER: 2003:71993 USPATFULL  
TITLE: Starch compositions containing biodegradation inhibitors and methods for the prevention of starch biodegradation  
INVENTOR(S): Sweeny, Philip Gerdon, Hackettstown, NJ, UNITED STATES  
Borokhov, Olga, Chatham, NJ, UNITED STATES  
Lutz, Patrick Jay, Nazareth, PA, UNITED STATES  
Tafesh, Ahmed Mohammed, Flemington, NJ, UNITED STATES  
PATENT ASSIGNEE(S): LONZA INC. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003050280	A1	20030313
APPLICATION INFO.:	US 2002-183690	A1	20020625 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-301773P	20010628 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DARBY & DARBY P.C., P. O. BOX 5257, NEW YORK, NY, 10150-5257	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
LINE COUNT:	572	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [0012] More recently, less toxic substances have been used as preservatives, including **iodopropynyl butylcarbamate**, polyaminopropyl biguanide, bis(3-aminopropyl) dodecylamine, benzethonium chloride, methyldibromo glutaronitrile, and ethylenediaminetetraacetic acid.

SUMM . . . on that product, such as instability, odor and breakdown of product, is greater. Moreover, some of these compounds, such as **iodopropynyl butylcarbamate**, are costly, so the use of large amounts of these compounds is not economical.

CLM What is claimed is:

6. The composition according to claim 3, wherein the **weight ratio** of the first component to the second component ranges from about 1:1 to about 10,000:1.

7. The composition according to claim 3, wherein the **weight ratio** of the first component to the second component ranges from about 200:1 to about 500:1.

19. The method of claim 17, wherein the **weight ratio** of the first component to the second component ranges from about 1:1 to about 10,000:1.

20. The method of claim 17, wherein the **weight ratio** of the first component to the second component ranges from about 200:1 to about 500:1.

IT 77-71-4, 5,5-Dimethylhydantoin 116-25-6, 1-Methylol-5,5-dimethylhydantoin 2634-33-5, 1,2-Benzisothiazolin-3-one 2682-20-4, 2-Methyl-4-isothiazolin-3-one 6440-58-0, 1,3-Dimethylol-5,5-dimethylhydantoin 16228-00-5, 3-Methylol-5,5-dimethylhydantoin 26172-55-4, 5-Chloro-2-methyl-4-isothiazolin-3-one (antimicrobial agents of formaldehyde donor compds. or its combination with isothiazolone compds. for starch slurry and paste)

L11 ANSWER 2 OF 16 USPATFULL

ACCESSION NUMBER: 2003:155658 USPATFULL  
TITLE: Microbicidal compositions and methods using

combinations of propiconazole and N-alkyl heterocycles and salts thereof

INVENTOR(S): Oppong, David, Cordova, TN, United States  
Whittemore, Marilyn S., Memphis, TN, United States  
Ellis, M. Sheldon, Cordova, TN, United States  
Miller, Jr., Robert H., Oakland, TN, United States  
Zhou, Xiaugdong, Memphis, TN, United States  
Elmore, Michael E., Collierville, TN, United States

PATENT ASSIGNEE(S): Buckman Laboratories International, Inc., Memphis, TN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6576629	B1	20030610
APPLICATION INFO.:	US 1999-369298		19990806 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Pryor, Alton N.		
LEGAL REPRESENTATIVE:	Morgan, Lewis & Bockius LLP		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	995		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . embodiment, combinations of propiconazole and an N-alkyl heterocyclic compound, its salt, or a mixture thereof are those combinations having a **weight ratio** of propiconazole to an N-alkyl heterocyclic compound, its salt, or a mixture thereof from about 99:1 to about 1:99. More preferably the **weight ratio** is from about 60:10 to about 10:60, and most preferably, from about 50:50 to about 25:75. The **weight ratio** may vary depending on the microbicide, the intended use, the microorganism encountered as well as the particular material, product, or.

IT 52-51-7, 2-Bromo-2-nitropropane-1,3-diol 1725-82-2, Iodopropargyl alcohol 1875-92-9D, Dimethylbenzyl ammonium chloride, N-Alkyl 2492-26-4, Sodium 2-mercaptobenzothiazole 2634-33-5, 1,2-Benzisothiazol-3(2H)-one 2682-20-4, 2-Methyl-4-isothiazolin-3-one 3064-70-8, Bis(trichloromethyl)sulfone 10222-01-2, 2,2-Dibromo-3-nitrilopropionamide 25376-38-9, Tribromophenol 26172-55-4, 5-Chloro-2-methyl-4-isothiazolin-3-one 55406-53-6 129348-50-1  
(microbicide in microbicidal compns. contg. propiconazole and N-alkyl heterocycles)

L11 ANSWER 3 OF 16 USPATFULL

ACCESSION NUMBER: 2001:59397 USPATFULL  
TITLE: Controlled release compositions  
INVENTOR(S): Ghosh, Tirthankar, Oreland, PA, United States  
Nungesser, Edwin H., Horsham, PA, United States  
PATENT ASSIGNEE(S): Rohm and Haas Company, Philadelphia, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6221374	B1	20010424
APPLICATION INFO.:	US 1998-73282		19980506 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-47966P	19970528 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Levy, Neil S.	

LEGAL REPRESENTATIVE: Cairns, S. Matthew, Crimaldi, Kenneth  
NUMBER OF CLAIMS: 14  
EXEMPLARY CLAIM: 1  
LINE COUNT: 667

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . from 0.1 %wt to 95%wt of the biologically active compound, based on the weight of the polyphenolic compound. Thus, the **weight ratio** of biologically active compound to polyphenolic compound in the compositions is generally from 0.1:99.9 to 95:5. Preferably, the **weight ratio** is from 1:10 to 9:1 and more preferably from 3:10 to 6:1 0.

CLM What is claimed is:

1. A controlled release composition comprising (a) at least 0.5 ppm of a biologically active compound selected from the group. . . m=1; n=1-100; and (c) an organic solvent carrier; wherein the biologically active compound and the polyphenolic compound are in a **weight ratio** relative to each other of from 1:10 to 9:1; and wherein the polyphenolic compound is optionally crosslinked.

IT 52-51-7 101-20-2, 3,4,4'-Trichlorocarbanilide 137-26-8,  
Tetramethylthiuram disulfide 137-30-4, Zinc dimethyl dithiocarbamate  
148-79-8, 2-(4-Thiazolyl)benzimidazole 719-96-0, N-  
(Fluorodichloromethylthio)phthalimide 971-66-4 1085-98-9 1897-45-6,  
Tetrachloroisophthalonitrile 2634-33-5, 1,2-Benzisothiazolin-3-one  
2682-20-4, 2-Methyl-3-isothiazolone 3380-34-5,  
5-Chloro-2-(2,4-dichlorophenoxy)phenol 6317-18-6, Methylene bis  
thiocyanate 6440-58-0 10222-01-2, 2,2-Dibromo-3-nitrilopropionamide  
12122-67-7, Zinc ethylenebisdithiocarbamate 12427-38-2 13108-52-6,  
2,3,5,6-Tetrachloro-4-(methylsulfonyl)pyridine 13167-25-4 13463-41-7,  
Zinc 2-pyridinethiol-1-oxide 20018-09-1, Diiodomethyl-p-tolyl sulfone  
21564-17-0, 2-Thiocyanomethylthiobenzothiazole 26172-55-4 26530-20-1,  
2-Octyl-3-isothiazolone 26656-82-6, Copper thiocyanate 30007-47-7,  
5-Bromo-5-nitro-1,3-dioxane 35691-65-7, 1,2-Dibromo-2,4-dicyanobutane  
55406-53-6, 3-Iodo-2-propynyl butylcarbamate 55965-84-9  
64359-81-5, 4,5-Dichloro-2-Octyl-3-isothiazolone 64440-88-6  
67412-55-9, N,N-Dimethyldichlorophenylurea 82633-79-2 83364-12-9  
107846-11-7, Bromochlorodimethylhydantoin 216006-67-6  
(controlled-release formulation of)

L11 ANSWER 4 OF 16 USPATFULL

ACCESSION NUMBER: 2000:156982 USPATFULL  
TITLE: Solid biocidal compositions  
INVENTOR(S): Ghosh, Tirthankar, Orelan, PA, United States  
PATENT ASSIGNEE(S): Rohm and Haas Company, Philadelphia, PA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6149927		20001121
APPLICATION INFO.:	US 1998-134318		19980814 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-55750P	19970814 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Raymond, Richard L.	
LEGAL REPRESENTATIVE:	Rogerson, Thomas D., Cairns, S. Matthew	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	683	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . on the weight of zirconium hydroxide. Preferably, the total amount of biocidal compound is 0.1 to 30% wt. Thus, the **weight**

ratio of biocidal compound to zirconium hydroxide in the compositions is generally 0.1:99.9 to 95:5 and preferably 0.1:99.9 to 30:70.

CLM What is claimed is:

3. The composition of claim 1 wherein the **weight ratio** of biocidal compound to zirconium hydroxide is from 0.1:99.9 to 95:5.

4. The composition of claim 3 wherein the **weight ratio** is from 0.1:99.9 to 30:70.

IT 52-51-7, 2-Bromo-2-nitro-1,3-propanediol 101-20-2, 3,4,4'-  
Trichlorocarbanilide 126-06-7 1897-45-6, 2,4,5,6-  
Tetrachloroisophthalonitrile 2634-33-5, 1,2-Benzisothiazolin-3-one  
2682-20-4, 2-Methyl-4-isothiazolin-3-one 3489-81-4,  
2-(2,4-Dichlorophenoxy)phenol 3811-73-2, Sodium 2-pyridinethiol-1-oxide  
6317-18-6, Methylenebis(thiocyanate) 10222-01-2, 2,2-Dibromo-3-  
nitrilopropionamide 13463-41-7, Zinc 2-pyridinethiol-1-oxide  
21564-17-0, 2-(Thiocyanomethylthio)benzothiazole 26172-55-4,  
5-Chloro-2-methyl-4-isothiazolin-3-one 26530-20-1, 2-Octyl-4-  
isothiazolin-3-one 35691-65-7, 1,2-DiBromo-2,4-dicyanobutane  
55406-53-6 64359-81-5 82633-79-2  
(controlled-release solid biocidal compns. contg.)

L11 ANSWER 5 OF 16 USPATFULL

ACCESSION NUMBER: 2000:91554 USPATFULL

TITLE: Controlled release composition incorporating metal  
oxide glass comprising biologically active compound

INVENTOR(S): Ghosh, Tirthankar, Orelan, PA, United States  
Nungesser, Edwin Hugh, Horsham, PA, United States

PATENT ASSIGNEE(S): Rohm and Haas Company, Phila., PA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6090399		20000718
APPLICATION INFO.:	US 1998-189479		19981110 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-69243P	19970211 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Page, Thurman K.	
ASSISTANT EXAMINER:	Ghali, Isis	
LEGAL REPRESENTATIVE:	Cairns, S Matthew, Rogerson, Thomas D.	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1340	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . of treatment when multiple biologically active compounds must be used. When more than one biologically active compound is used, the **weight ratio** of the total amount of the biologically active compound to the metal oxide glass is generally from 0.1:99.9 to 75:25. When used in combination, the biologically active compounds may be combined in any **weight ratio** from 0.1:99.9 to 99.9:0.1.

SUMM . . . aluminum alkoxide monomers may be used. When mixtures of metal alkoxide monomers are used, they may be used in any **weight ratio** from 1:99 to 99:1. The range of weight ratios of mixtures of metal alkoxide monomers is preferably 10:90 to 90:10, . . .

IT 2682-20-4, 2-Methyl-3-isothiazolone 26172-55-4 28159-98-0,  
2-(Methylthio)-4-tert-butylamino-6-(cyclopropylamino)-s-triazine  
55406-53-6, 3-Iodo-2-propynyl butyl carbamate 64359-81-5,  
4,5-Dichloro-2-n-octyl-3-isothiazolone



(controlled-release compns. contg. agricultural pesticide, microbicide  
or antifouling agent incorporated into metal oxide glass)

L11 ANSWER 6 OF 16 USPATFULL

ACCESSION NUMBER: 2000:87734 USPATFULL  
TITLE: Personal treatment compositions and/or cosmetic  
compositions containing enduring perfume  
INVENTOR(S): Trinh, Toan, Maineville, OH, United States  
Bacon, Dennis Ray, Milford, OH, United States  
Chung, Alex Haejoon, West Chester, OH, United States  
Trandai, Angie, West Chester, OH, United States  
PATENT ASSIGNEE(S): The Proctor & Gamble Company, Cincinnati, OH, United  
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6086903		20000711
APPLICATION INFO.:	US 1996-606881		19960226 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wortman, Donna C.		
LEGAL REPRESENTATIVE:	Camp, Jason J.		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3846		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM The **weight ratio** of the highly arylated polysiloxane  
fluid to the spreading agent will, in general, be between about 1000:1  
and about 1:1, . . .

SUMM The **weight ratio** of the nonvolatile silicone fluid,  
having refractive index below about 1.46, to the silicone resin  
component, when used, is preferably. . .

DETD . . . cyclotetrasiloxane  
1.70

Main Mix

Water QS100

Cetyl Alcohol 1.00

Quaternium 18.sup.(2)

0.85

Stearyl Alcohol 0.70

Hydroxethyl cellulose

0.50

Ceteareth-20 0.35

Perfume E 0.20

Dimethicone copolyol 0.20

Citric Acid 0.13

Methylchloroisothiazolinone (and)

0.04

**methyloisothiazolinone**

Sodium Chloride 0.01

.sup.(1) Commercially available from General Electric.

.sup.(2) Dimethyl Di(Hydrogenated Tallow) Ammonium Chloride

DETD . . . 2.00

Stearyl Alcohol 1.00

Shea Butter 1.00

Cetyl Alcohol 1.00

Ceteareth-20 2.50

Ceteth-2 1.00

Ceteth-10 1.00

Phase C

DEA-Cetyl Phosphate

0.75

Phase D

Dihydroxyacetone 3.00  
Phase E  
Butylene Glycol 2.00  
DMDM Hydantoin (and)  
0.25

**Iodopropynyl Butylcarbamate**

Phase F  
Perfume H 1.00  
Cyclomethicone 2.00

---

.sup.(1) Available as Carbopol .RTM. 934 from B.F. Goodrich.  
.sup.(2) Available as Carbopol .RTM. 980 from. . .  
DETD . . . Alcohol.sup.(6)  
Glyceryl Tribehenate.sup.(7)

0.75  
Dimethicone 1.00  
Tocopheryl Acetate 0.10  
DEA-Cetyl Phosphate 0.20

Phase C  
Water 2.00  
Triethanolamine 99% 0.60

Phase D  
Water 2.00  
Perfume I 0.05  
Butylene Glycol 2.00  
DMDM Hydantoin (and)  
0.25

**Iodopropynyl Butylcarbamate.sup.(8)**  
1.00

dL Panthenol  
Phase E  
Cyclomethicone 1.00

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.sup.(1) Available as Carbopol .RTM. 954 from B.F. Goodrich.  
.sup.(2) Available as Carbopol .RTM. 1342 from. . .

L11 ANSWER 7 OF 16 USPATFULL

ACCESSION NUMBER: 2000:27977 USPATFULL  
TITLE: Potentiation of biocide activity using an N-alkyl  
heterocyclic compound  
INVENTOR(S): Whittemore, Marilyn S., Germantown, TN, United States  
Glover, Daniel E., Brighton, TN, United States  
Rayudu, S. Rao, Germantown, TN, United States  
PATENT ASSIGNEE(S): Buckman Laboratories International Inc, Memphis, TN,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6034081		20000307
APPLICATION INFO.:	US 1995-453001		19950530 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Spivack, Phyllis G.		
LEGAL REPRESENTATIVE:	Morgan, Lewis & Bockius LLP		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
LINE COUNT:	835		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM In a preferred embodiment, combinations of a microbicide and an N-alkyl heterocyclic compound are those combinations having a **weight ratio** of microbicide to N-alkyl heterocyclic compound from about 99:1 to about 1:99. More preferably the **weight ratio** is from about 60:10 to about 10:60, and most preferably, from about 50:50 to about 25:75. The **weight ratio** may vary

depending on the microbicide, the intended use, the microorganism encountered as well as the particular material, product, or. . .

IT 52-51-7D, 2-Bromo-2-nitropropane-1,3-diol, mixts. with N-alkylheterocyclic compds. 122-42-9D, IPC, mixts. with N-alkylheterocyclic compds. 1541-81-7D, N-Dodecylmorpholine, mixts. contg. 1704-28-5D, N-Dodecyl-2,6-dimethylmorpholine, mixts. contg. 2634-33-5D, 1,2-Benzisothiazol-3(2H)-one, mixts. with N-alkylheterocyclic compds. 2682-20-4D, mixts. with N-alkylheterocyclic compds. 2687-96-9D, N-Dodecyl-2-pyrrolidinone, mixts. contg. 2915-94-8 4303-67-7D, N-Dodecylimidazole, mixts. contg. 5917-47-5D, N-Dodecylpiperidine, mixts. contg. 10222-01-2D, 2,2-Dibromo-3-nitrilopropionamide, mixts. with N-alkylheterocyclic compds. 20422-09-7D, mixts. contg. 25376-38-9D, Tribromophenol, mixts. with N-alkylheterocyclic compds. 26172-55-4D, 5-Chloro-2-methyl-4-isothiazolin-3-one, mixts. with N-alkylheterocyclic compds. 55406-53-6D, IPBC, mixts. with N-alkylheterocyclic compds. 79089-29-5D, mixts. contg. 152720-68-8D, mixts. contg. 152720-69-9D, mixts. contg. 152720-70-2D, mixts. contg. (synergistic microbicides)

L11 ANSWER 8 OF 16 USPATFULL

ACCESSION NUMBER: 1999:72243 USPATFULL  
TITLE: Personal care compositions  
INVENTOR(S): Hutchins, Thomas Allen, Cincinnati, OH, United States  
Snyder, Michael Albert, Mason, OH, United States  
Clarizia, Mario Paul, Iowa City, IA, United States  
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5916548		19990629
APPLICATION INFO.:	US 1997-833819		19970409 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-707554, filed on 4 Sep 1996, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Venkat, Jyothsna		
LEGAL REPRESENTATIVE:	Little, Darryl C., Allen, George W., Rosnell, Tara M.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2409		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM wherein the **weight ratio** of the copolymer to the fatty amine is from about 50:1 to about 1:1;  
SUMM b.) complexing the acid functional group of the copolymer with a fatty amine wherein the **weight ratio** of the copolymer to the fatty amine is from about 50:1 to about 1:1; and  
SUMM wherein the **weight ratio** of the copolymer to the fatty amine is from about 50:1 to about 1:1;  
SUMM . . . either during the polymerization process or after the polymerization process as part of a final complexing step preferably at a **weight ratio** of copolymer complex to fatty amine of from about 50:1 to about 1:1, preferably from about 3:1 to about 10:7, . . .  
DETD . . . Weight %

Water	Q.S. to 100%
Hydrophobically Modified Hydroxyethylcellulose [1]	0.25%
Stearalkonium Chloride	0.87%
Cetyl Alcohol	1.85%
Stearyl Alcohol	0.21%
Stearamidopropyl Dimethylamine	

	0.50%
CF1213 .RTM. [2]	2.33%
Methylchloroisothiazolinone	<b>Methylisothiazolinone</b>
	0.03%
Perfume	0.33%
Copolymer [3]	2.00%
Dimethylmyristamine (ARMEEN DM14D) [4]	
	1.33%
Cyclomethicone D4	9.63%

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[1] Polysurf 67 .RTM. supplied by Aqualon  
 [2] Dimethicone Gum. . .  
 DETD . . . Weight %

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Water	Q.S. to 100%
Hydrophobically Modified Hydroxyethylcellulose [1]	
	0.50%
Stearalkonium Chloride	0.87%
Cetyl Alcohol	1.85%
Stearyl Alcohol	0.21%
Stearamidopropyl Dimethylamine	
	0.50%
CF1213 .RTM. [2]	2.33%
Methylchloroisothiazolinone	<b>Methylisothiazolinone</b>
	0.03%
Perfume	0.33%
Copolymer [3]	2.00%
dimethylauramine (ARMEENDM12D) [4]	
	0.50%
Isododecane	4.81%
Hexamethyl disiloxane	4.81%

---

[1] Polysurf 67 .RTM. supplied by Aqualon  
 [2] Dimethicone Gum in. . .  
 DETD . . . Lauryl Sulfate 3.14%  
 Ammonium Laureth Sulfate 13.56%  
 Cetyl Alcohol 0.45%  
 Stearyl Alcohol 0.19%  
 Coco Monoethanol Amide 3.00%  
 Ethylene Glycol Distearate  
 2.00%  
 Tricetyl Methyl Ammonium Chloride  
 0.50%  
 Methylchloroisothiazolinone **Methylisothiazolinone**  
 0.03%  
 Perfume 0.20%  
 Copolymer [1] 4.00%  
 Stearamine (ARMEEN 18) [2]  
 3.01%  
 Isododecane 7.40%

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[1] Poly[(tbutyl acrylate)(acrylic acid)graft-polydimethylsiloxane)  
 [2] Commercially available from Akzo  
 DETD . . . 8.30%  
 Ammonium Lauryl Sulfate 2.12%  
 Ammonium Laureth Sulfate 6.35%  
 Coco Monoethanol Amide 1.50%  
 Hydroxypropyl Methocellulose (K15)  
 0.25%  
 Ethylene Glycol Distearate  
 1.50%  
 Tricetyl Methyl Ammonium Chloride  
 0.50%  
 Methylchloroisothiazolinone **Methylisothiazolinone**

	0.03%
Perfume	0.20%
Copolymer [1]	3.00%
dimethylstearamine (ARMEEN DM18D) [2]	2.48%
Isododecane	5.00%
Cyclomethicone	5.00%

[1] Poly[(tbutyl acrylate)(acrylic acid)graft-polydimethylsiloxane)

[2] Commercially available from Akzo

DETD . . . .	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent component Mixture	
Copolymer [3]	2.00%
Cyclomethicone D4	5.00%
Hexamethyl disiloxane	5.00%
Dimethylmyristamine (ARMEENDM14D) [4]	1.33%
Methylchloroisothiazolinone	<b>Methylisothiazolinone</b>
	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

[1] Dimethicone Gum in D5 cyclomethicone; commercially available from GE

[2] Polysurf 67 .RTM. supplied by. . .

DETD . . . .	[1]
	1.23%
Xanthan Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent Mixture	
Copolymer # 1	2.00%
Cyclomethicone D4	4.67%
Dimethylmyristamine (ARMEENDM14D)	1.33%
Methylchloroisothiazolinone	<b>Methylisothiazolinone</b>
	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

[1] Polysurf 67 .RTM. supplied by Aqualon

[2] Commercially available from GE

DETD . . . .	[1]
	1.23%
Xanthan Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent Mixture	
Copolymer # 1	2.00%
Cyclomethicone D4	5.56%
Dimethylmyristamine (ARMEENDM14D)	1.33%
Methylchloroisothiazolinone	<b>Methylisothiazolinone</b>
	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%



from about 10% to about. . . .  
 . . . and wherein the fatty amine forms a complex with the acid functional  
 group of the B monomer units wherein the **weight ratio**  
 of the copolymer to the fatty amine is from about 3:1 to about 10:7; B.)  
 from about 10% to about. . . .

L11 ANSWER 9 OF 16 USPATFULL

ACCESSION NUMBER: 1999:12547 USPATFULL  
 TITLE: Personal care compositions  
 INVENTOR(S): Hutchins, Thomas Allen, Cincinnati, OH, United States  
 Snyder, Michael Albert, Mason, OH, United States  
 Clarizia, Mario Paul, Iowa City, IA, United States  
 PATENT ASSIGNEE(S): The Proctor & Gamble Company, Cincinnati, OH, United  
 States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5863527		19990126
APPLICATION INFO.:	US 1997-833820		19970409 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-708334, filed on 4 Sep 1996, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Venkat, Jyothsna		
LEGAL REPRESENTATIVE:	Little, Darryl C., Allen, George W.		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1,12,15,17,18		
LINE COUNT:	2591		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM wherein the **weight ratio** of the copolymer to the  
 fatty amine is from about 50:1 to about 1:1; and  
 SUMM b.) complexing the copolymer with a fatty amine wherein the  
**weight ratio** of the copolymer to the fatty amine is  
 from about 50:1 to about 1:1; and  
 SUMM wherein the **weight ratio** of the copolymer to the  
 fatty amine is from about 50:1 to about 1:1; and  
 SUMM . . . either during the polymerization process or after the  
 polymerization process as part of a final complexing step preferably at  
 a **weight ratio** of copolymer to fatty amine of from  
 about 50:1 to about 1:1, more preferably from about 3:1 to about 10:7,.

DETD

Component	Weight %
Water	Q.S. to 100%
Hydrophobically Modified Hydroxyethylcellulose.sup. [1]	0.25%
Stearalkonium Chloride	0.87%
Cetyl Alcohol	1.85%
Stearyl Alcohol	0.21%
Stearamidopropyl Dimethylamine	0.50%
CF1213 .RTM..sup. [2]	2.33%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Copolymer 3.sup. [3]	2.00%
Dimethylmyristamine (ARMEEN DM14D).sup. [4]	0.56%
Cyclomethicone D4	9.63%

.sup. [1] Polysurf 67 .RTM. supplied by Aqualon

.sup. [2] Dimethicone Gum in. . . .

DETD

Component	Weight %
Water	Q.S. to 100%
Hydrophobically Modified Hydroxyethylcellulose.sup. [1]	0.50%
Stearalkonium Chloride	0.87%
Cetyl Alcohol	1.85%
Stearyl Alcohol	0.21%
Stearamidopropyl Dimethylamine	0.50%
CF1213 .RTM..sup. [2]	2.33%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Copolymer 1.sup. [3]	2.00%
dimethyl Lauramine (ARMEENDM12D).sup. [4]	1.18%
Isododecane	4.81%
Hexamethyl disiloxane	4.81%
<hr/>	
.sup. [1] Polysurf 67 .RTM. supplied by Aqualon	
.sup. [2] Dimethicone Gum in. . .	
DETD . . . Lauryl Sulfate	3.14%
Ammonium Laureth Sulfate	13.56%
Cetyl Alcohol	0.45%
Stearyl Alcohol	0.19%
Coco Monoethanol Amide	3.00%
Ethylene Glycol Distearate	2.00%
Tricetyl Methyl Ammonium Chloride	0.50%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.20%
Copolymer 2.sup. [1]	4.00%
Stearamine (ARMEEN 18).sup. [2]	1.25%
Isododecane	7.40%
<hr/>	
.sup. [1] Poly[(tbutyl acrylate) (methacrylic acid)graft-polydimethylsiloxane)	
.sup. [2] Commercially available from Akzo	
DETD . . .	8.30%
Ammonium Lauryl Sulfate	2.12%
Ammonium Laureth Sulfate	6.35%
Coco Monoethanol Amide	1.50%
Hydroxypropyl Methocellulose (K15)	0.25%
Ethylene Glycol Distearate	1.50%
Tricetyl Methyl Ammonium Chloride	0.50%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.20%
Copolymer 4.sup. [1]	3.00%
dimethylstearamine (ARMEEN DM18D).sup. [2]	2.48%
Isododecane	5.00%
Cyclomethicone	5.00%
<hr/>	
.sup. [1] Poly[(tbutyl acrylate) (acrylic acid)grift-polyisobutylene)	



.sup.[2] Commercially available from Akzo

DETD . . . Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent component Mixture	
Copolymer 1.sup.[3]	2.00%
Cyclomethicone D4	5.00%
Hexamethyl disiloxane	5.00%
Dimethylmyristamine (ARMEENDM14D).sup.[4]	1.33%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

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.sup.[1] Dimethicone Gum in D5 cyclomethicone; commercially available from GE

.sup.[2] Polysurf 67 .RTM. supplied by. . .

DETD . . . Modified Hydroxyethylcellulose[1]	1.23%
Xanthan Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent Mixture	
Copolymer #1	2.00%
Cyclomethicone D4	4.67%
Dimethylmyristamine (ARMEENDM14D)	1.33%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

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[1]Polysurf 67 .RTM. supplied by Aqualon

[2]Commercially available from GE

DETD . . . Modified Hydroxyethylcellulose[1]	1.23%
Xanthan Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent Mixture	
Copolymer #1	2.00%
Cyclomethicone D4	5.56%
Dimethylmyristamine (ARMEENDM14D)	1.33%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

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[1]Polysurf 67 .RTM. supplied by Aqualon

[2]Commercially available from GE

DETD . . . 72.08%	
Hydrophobically Modified Hydroxyethylcellulose[1]	1.23%
Xanthan Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%

Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent Mixture	
Copolymer #1	2.00%
Isododecane	4.09%
Dimethyl Lauramine (ARMEENDM12D)	1.18%
Methylchloroisothiazolinone	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

[1] Polysurf 67 .RTM. supplied by Aqualon  
 [2] Commercially available from GE  
 DETD . . . (and)

	0.50
Stearyl Alcohol.sup.[5]	
Glyceryl Tribehenate	0.75
Dimethicone	1.00
Tocopheryl Acetate	0.10
DEA-Cetyl Phosphate	0.20
Phase C	
Water	2.00
Triethanolamine 99%	0.60
Phase D	
Water	2.00
Butylene Glycol	2.00
DMDM Hydantoin (and) Iodopropynyl Butylcarbamate.sup.[6]	0.25
dL Panthenol	1.00
Phase E	
Cyclomethicone D4	4.00
Copolymer 6.sup.[7]	1.00
stearamine	1.25

.sup.[1] Available as Carbopol .RTM. 954 from B.F. Goodrich.  
 .sup.[2] Available.

CLM What is claimed is:

- . . . and mixtures thereof and wherein the fatty amine forms a complex with the acid functional B monomer units wherein the **weight ratio** of the copolymer to the fatty amine is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . . .
- . . . and mixtures thereof and wherein the fatty amine forms a complex with the acid functional B monomer units wherein the **weight ratio** of the copolymer to the fatty amine is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . . .
- . . . mixtures thereof and wherein the fatty amine forms a complex with the acid functional B monomer units and wherein the **weight ratio** of the copolymer to the fatty amino is from about 50:1 to about 1:1; and c.) dissolving or dispersing the. . . .
- . . . and mixtures thereof and wherein the fatty amine forms a complex with the acid functional B monomer units wherein the **weight ratio** of the copolymer to the fatty amine is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . . .
- . . . and mixtures thereof and wherein the fatty amine forms a complex with the acid functional B monomer units wherein the **weight ratio** of the copolymer to the fatty amine is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent component. . . .
- . . . and mixtures thereof and wherein the fatty amine forms a complex with the acid functional B monomer units wherein the **weight ratio** of the copolymer to the fatty amine is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . . .

ACCESSION NUMBER: 1998:156931 USPATFULL  
 TITLE: Personal treatment compositions and/or cosmetic compositions containing enduring perfume  
 INVENTOR(S): Trinh, Toan, Maineville, OH, United States  
 Bacon, Dennis Ray, Milford, OH, United States  
 Chung, Alex Haejoon, West Chester, OH, United States  
 Trandai, Angie, West Chester, OH, United States  
 PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5849310		19981215
APPLICATION INFO.:	US 1996-606882		19960226 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-326457, filed on 20 Oct 1994, now patented, Pat. No. US 5540853		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Venkat, Jyothsna		
LEGAL REPRESENTATIVE:	Aylor, Robert B.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3862		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM The **weight ratio** of the highly arylated polysiloxane fluid to the spreading agent will, in general, be between about 1000:1 and about 1:1, . . .

SUMM The **weight ratio** of the nonvolatile silicone fluid, having refractive index below about 1.46, to the silicone resin component, when used, is preferably. . .

DETD . . . cyclotetrasiloxane  
 1.70

Main Mix  
 Water QS100  
 Cetyl Alcohol 1.00  
 Quaternium 18.sup.(2) 0.85  
 Stearyl Alcohol 0.70  
 Hydroxethyl cellulose 0.50  
 Ceteareth-20 0.35  
 Perfume E 0.20  
 Dimethicone copolyol 0.20  
 Citric Acid 0.13  
 Methylchloroisothiazolinone (and) 0.04  
**methylisothiazolinone**  
 Sodium Chloride 0.01

.sup.1 Commercially available from General Electric.  
 .sup.2 Dimethyl Di(Hydrogenated Tallow) Ammonium Chloride

DETD . . . Oil 2.00

Stearyl Alcohol 1.00  
 Shea Butter 1.00  
 Cetyl Alcohol 1.00  
 Ceteareth-20 2.50  
 Ceteth-2 1.00  
 Ceteth-10 1.00

Phase C  
 DEA-Cetyl Phosphate 0.75

Phase D  
 Dihydroxyacetone 3.00  
 Phase E

Butylene Glycol 2.00  
DMDM Hydantoin (and)  
Iodopropynyl Butylcarbamate  
0.25

Phase F  
Perfume H 1.00  
Cyclomethicone 2.00

.sup.(1) Available as Carbopol .RTM. 934 from B. F. Goodrich.

.sup.(2) Available as Carbopol .RTM.. . .

DETD . . . Alcohol.sup.(6)

Glyceryl Tribehenate.sup.(7)

0.75

Dimethicone 1.00

Tocopheryl Acetate 0.10

DEA-Cetyl Phosphate 0.20

Phase C

Water 2.00

Triethanolamine 99% 0.60

Phase D

Water 2.00

Perfume I 0.05

Butylene Glycol 2.00

DMDM Hydantoin (and)

0.25

Iodopropynyl Butylcarbamate.sup.(8)

dL Panthenol 1.00

Phase E

Cyclomethicone 1.00

.sup.(1) Available as Carbopol.sup.R 954 from B. F. Goodrich.

.sup.(2) Available as Carbopol.sup.R 1342 from B.. . .

L11 ANSWER 11 OF 16 USPATFULL

ACCESSION NUMBER: 1998:138451 USPATFULL

TITLE: Personal treatment compositions and /or cosmetic  
compositions containing enduring perfume

INVENTOR(S): Trinh, Toan, Maineville, OH, United States  
Bacon, Dennis Ray, Milford, OH, United States  
Trandai, Angie, West Chester, OH, United States

PATENT ASSIGNEE(S): The Proctor & Gamble Company, Cincinnati, OH, United  
States (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 5833999 19981110

APPLICATION INFO.: US 1996-745385 19960520 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1994-326620, filed on 20  
Oct 1994, now abandoned

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Venkat, Jyothsna

LEGAL REPRESENTATIVE: Aylor, Robert B.

NUMBER OF CLAIMS: 12

EXEMPLARY CLAIM: 1

LINE COUNT: 3503

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM The **weight ratio** of the highly arylated polysiloxane  
fluid to the spreading agent will, in general, be between about 1000:1  
and about 1:1, . . .

SUMM The **weight ratio** of the nonvolatile silicone fluid,  
having refractive index below about 1.46, to the silicone resin  
component, when used, is preferably. . .

DETD . . . 1.70

Main Mix	
Water	QS
	100
Cetyl Alcohol	1.00
Quaternium 18.sup.(2)	
	0.85
Stearyl Alcohol	0.70
Hydroxethyl cellulose	
	0.50
Ceteareth-20	0.35
Perfume A	0.20
Dimethicone copolyol	0.20
Citric Acid	0.13
Methylchloroisothiazolinone (and)	
	0.04
<b>methyloisothiazolinone</b>	
Sodium Chloride	0.01

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.sup.1 Commercially available from General Electric.  
 .sup.2 Dimethyl Di(Hydrogenated Tallow) Ammonium Chloride

DETD	2.00
Stearyl Alcohol	1.00
Shea Butter	1.00
Cetyl Alcohol	1.00
Ceteareth-20	2.50
Ceteth-2	1.00
Ceteth-10	1.00

Phase C  
 DEA-Cetyl Phosphate

	0.75
--	------

Phase D  
 Dihydroxyacetone

	3.00
--	------

Phase E  
 Butylene Glycol

	2.00
--	------

DMDM Hydantoin (and)

	0.25
--	------

**Iodopropynyl Butylcarbamate**

Phase F  
 Perfume B

	1.00
--	------

Cyclomethicone

	2.00
--	------

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.sup.(1) Available as Carbopol .RTM. 934 from B. F. Goodrich.  
 .sup.(2) Available as Carbopol .RTM. 980. . . .

DETD	Alcohol.sup.(6)
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Glyceryl Tribehenate.sup.(7)

	0.75
Dimethicone	1.00
Tocopheryl Acetate	0.10
DEA-Cetyl Phosphate	0.20

Phase C  
 Water

	2.00
--	------

Triethanolamine 99%

	0.60
--	------

Phase D  
 Water

	2.00
--	------

Perfume B

	0.05
--	------

Butylene Glycol

	2.00
--	------

DMDM Hydantoin (and)

	0.25
--	------

**Iodopropynyl Butylcarbamate.sup.(8)**

dL Panthenol

	1.00
--	------

Phase E  
 Cyclomethicone

	1.00
--	------

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.sup.(1) Available as Carbopol.sup.R 954 from B. F. Goodrich.

.sup.(2) Available as Carbopol.sup.R 1342 from B.. . .

L11 ANSWER 12 OF 16 USPATFULL

ACCESSION NUMBER: 1998:134611 USPATFULL  
TITLE: Personal care compositions  
INVENTOR(S): Hutchins, Thomas Allen, Cincinnati, OH, United States  
Carballada, Jose Antonio, Cincinnati, OH, United States  
Bolich, Jr., Raymond Edward, Maineville, OH, United States  
Torgerson, Peter Marte, Washington Courthouse, OH, United States  
Snyder, Michael Albert, Mason, OH, United States  
Clarizia, Mario Paul, Iowa City, IA, United States  
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5830447		19981103
APPLICATION INFO.:	US 1997-833818		19970409 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-735939, filed on 23 Oct 1996, now abandoned which is a continuation of Ser. No. US 1996-708862, filed on 4 Sep 1996, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Venkat, Jyothsna		
LEGAL REPRESENTATIVE:	Little, Darryl C., Allen, George W.		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1,21,23,25,26		
LINE COUNT:	2358		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . acid wherein the fatty acid forms a complex with the nitrogen containing group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and

SUMM . . . complexing the nitrogen containing functional group of the B monomer units of the copolymer with a fatty acid wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and

SUMM . . . acid wherein the fatty acid forms a complex with the nitrogen containing group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and

SUMM . . . either during the polymerization process or after the polymerization process as part of a final complexing step preferably at a **weight ratio** of copolymer complex to fatty acid of from about 50:1 to about 1:1, preferably from about 3:1 to about 10:7,.

DETD . . . Weight %

Water	Q.S. to 100%
Hydrophobically Modified Hydroxyethylcellulose [1]	0.25%
Stearalkonium Chloride	0.87%
Cetyl Alcohol	1.85%
Stearyl Alcohol	0.21%
Stearamidopropyl Dimethylamine	0.50%
CF1213 .RTM. [2]	2.33%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Copolymer [3]	2.00%

myristoleic acid	0.27%
Cyclomethicone D4	9.63%

---

[1] Polysurf 67 .RTM. supplied by Aqualon  
[2] Dimethicone Gum in D5. . .  
DETD . . . Weight %

---

Water	Q.S. to 100%
Hydrophobically Modified Hydroxyethylcellulose [1]	0.50%
Stearalkonium Chloride	0.87%
Cetyl Alcohol	1.85%
Stearyl Alcohol	0.21%
Stearamidopropyl Dimethylamine	0.50%
CF1213 .RTM. [2]	2.33%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Copolymer [3]	2.00%
Oleic Acid	0.71%
Hexamethyl disiloxane	4.81%
Isododecane	4.81%

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[1] Polysurf 67 .RTM. supplied by Aqualon  
[2] Dimethicone Gum in. . .  
DETD . . . Lauryl Sulfate 3.14%  
Ammonium Laureth Sulfate 13.56%  
Cetyl Alcohol 0.45%  
Stearyl Alcohol 0.19%  
Coco Monoethanol Amide 3.00%  
Ethylene Glycol Distearate 2.00%  
Tricetyl Methyl Ammonium Chloride 0.50%  
Methylchloroisothiazolinone **Methylisothiazolinone** 0.03%  
Perfume 0.20%  
Copolymer [1] 4.00%  
Palmitoleic acid 0.60%  
Isododecane 7.40%

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[1] Poly[(tbutyl  
acrylate) (dimethylaminopropylacrylamide) -graft-polydimethylsiloxane)  
DETD . . . 8.30%  
Ammonium Lauryl Sulfate 2.12%  
Ammonium Laureth Sulfate 6.35%  
Coco Monoethanol Amide 1.50%  
Hydroxypropyl Methocellulose (K15) 0.25%  
Ethylene Glycol Distearate 1.50%  
Tricetyl Methyl Ammonium Chloride 0.50%  
Methylchloroisothiazolinone **Methylisothiazolinone** 0.03%  
Perfume 0.20%  
Copolymer [1] 3.00%  
oleic acid 0.50%  
Isododecane 5.00%  
cyclomethicone 5.00%

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[1] Poly[(tbutyl  
acrylate) (dimethylaminopropylacrylamide) -graft-polydimethylsiloxane)

DETD . . . . . Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent component Mixture	
Copolymer [3]	2.00%
Cyclomethicone D4	5.00%
Hexamethyl disiloxane	5.00%
myristoleic acid	0.30%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

[1] Dimethicone Gum in D5 cyclomethicone; commercially available from GE

[2] Polysurf 67 .RTM. supplied by. . .

DETD . . . . . Hydroxyethylcellulose [1]	1.23%
Xanthan Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent Mixture	
Copolymer #1	2.00%
Cyclomethicone D4	6.58%
myristoleic acid	0.30%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

[1] Polysurf 67 .RTM. supplied by Aqualon

[2] Commercially available from GE

DETD . . . . . Hydroxyethylcellulose [1]	1.23%
Xanthan Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent Mixture	
Copolymer #1	2.00%
Cyclomethicone D4	5.7%
myristoleic acid	0.30%
Methylchloroisothiazolinone <b>Methylisothiazolinone</b>	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

[1] Polysurf 67 .RTM. supplied by Aqualon

[2] Commercially available from GE

DETD . . . . . Modified Hydroxyethylcellulose [1]	1.23%
Xanthan Gum	0.25%
Citric Acid	0.02%
Sodium Citrate	0.09%
Cetyl Alcohol	0.12%
Stearyl Alcohol	0.08%
Polymer-Solvent Mixture	
Copolymer #1	2.00%
Isododecane	4.97%
myristoleic acid	0.30%



Methylchloroisothiazolinone **Methylisothiazolinone**

	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

[1] Polysurf 67 .RTM. supplied by Aqualon

[2] Commercially available from GE

DETD . . . (and)

0.50

Stearyl Alcohol.sup.5

Glyceryl Tribehenate 0.75

Dimethicone 1.00

Tocopheryl Acetate 0.10

DEA-Cetyl Phosphate 0.20

Phase C

Water 2.00

Triethanolamine 99% 0.60

Phase D

Water 2.00

Butylene Glycol 2.00

DMDM Hydantoin (and) **Iodopropynyl Butylcarbamate**.sup.6

0.25

d-Panthenol 1.00

Phase E

Cyclomethicone D4 4.00

Copolymer.sup.7 1.00

oleic acid 0.36

.sup.1 Available as Carbopol .RTM. 954 from B.F. Goodrich.

.sup.2 Available as. . .

CLM What is claimed is:

- . . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .
- . . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .
- . . . the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units and wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and c.) dissolving or dispersing the. . .
- . . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .
- . . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .
- . . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .

L11 ANSWER 13 OF 16 USPTFULL

ACCESSION NUMBER: 1998:108013 USPTFULL

TITLE: Personal care compositions

INVENTOR(S): Hutchins, Thomas Allen, Cincinnati, OH, United States  
Carballada, Jose Antonio, Cincinnati, OH, United States  
Bolich, Jr., Raymond Edward, Maineville, OH, United States

Torgerson, Peter Marte, Washington Courthouse, OH,

United States  
 Snyder, Michael Albert, Cincinnati, OH, United States  
 Clarizia, Mario Paul, Cincinnati, OH, United States  
 PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5804173		19980908
APPLICATION INFO.:	US 1997-833817		19970409 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-736316, filed on 23 Oct 1996, now abandoned which is a continuation of Ser. No. US 1996-707775, filed on 4 Sep 1996, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Venkat, Jyothsna		
LEGAL REPRESENTATIVE:	Little, Darryl C., Allen, George W.		
NUMBER OF CLAIMS:	22		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2496		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and

SUMM b.) complexing the copolymer with a fatty acid wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and

SUMM . . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to 15 about 1:1; and

SUMM . . . either during the polymerization process or after the polymerization process as part of a final complexing step preferably at a **weight ratio** of copolymer to fatty acid of from about 50:1 to about 1:1, more preferably from about 3:1 to about 10:7,.

DETD . . . Q.S. to 100%  
 Hydrophobically Modified Hydroxyethylcellulose [1]  
     0.25%  
 Stearalkonium Chloride 0.87%  
 Cetyl Alcohol 1.85%  
 Stearyl Alcohol 0.21%  
 Stearamidopropyl Dimethylamine 0.50%  
 CF1213 .RTM. (Dimethicone Gum) [2]  
     2.33%  
 Methylchloroisothiazolinone **Methylisothiazolinone** 0.03%  
 Perfume 0.33%  
 Copolymer #1 2.00%  
 myristoleic acid 0.27%  
 Cyclomethicone D4 9.63%

---

DETD . . . Q.S. to 100%  
 Hydrophobically Modified Hydroxyethylcellulose [1]  
     0.50%  
 Stearalkonium Chloride 0.87%  
 Cetyl Alcohol 1.85%  
 Stearyl Alcohol 0.21%  
 Stearamidopropyl Dimethylamine 0.50%  
 CF1213 .RTM. (Dimethicone Gum) [2]  
     2.33%  
 Methylchloroisothiazolinone **Methylisothiazolinone**

	0.03%
Perfume	0.33%
Copolymer #2	2.00%
Oleic Acid	0.71%
Isododecane	9.63%

---

DETD . . . Lauryl Sulfate 3.14%

Ammonium Laureth Sulfate

	13.56%
--	--------

Cetyl Alcohol	0.45%
---------------	-------

Stearyl Alcohol	0.19%
-----------------	-------

Coco Monoethanol Amide	3.00%
------------------------	-------

Ethylene Glycol Distearate	
----------------------------	--

	2.00%
--	-------

Tricetyl Methyl Ammonium Chloride	
-----------------------------------	--

	0.50%
--	-------

Methylchloroisothiazolinone **Methylisothiazolinone**

	0.03%
--	-------

Perfume	0.20%
---------	-------

Copolymer #1	4.00%
--------------	-------

Palmitoleic acid	0.60%
------------------	-------

Isododecane	7.40%
-------------	-------

---

DETD . . . 8.30%

Ammonium Lauryl Sulfate 2.12%

Ammonium Laureth Sulfate

	6.35%
--	-------

Coco Monoethanol Amide	1.50%
------------------------	-------

Hydroxypropyl Methocellulose (K15)	
------------------------------------	--

	0.25%
--	-------

Ethylene Glycol Distearate	
----------------------------	--

	1.50%
--	-------

Tricetyl Methyl Ammonium Chloride	
-----------------------------------	--

	0.50%
--	-------

Methylchloroisothiazolinone **Methylisothiazolinone**

	0.03%
--	-------

Perfume	0.20%
---------	-------

Copolymer #1	3.00%
--------------	-------

oleic acid	0.50%
------------	-------

Isododecane	10.00%
-------------	--------

---

DETD . . . Modified Hydroxyethylcellulose.sup. [1]

	1.23%
--	-------

Xanthan Gum	0.25%
-------------	-------

Citric Acid	0.02%
-------------	-------

Sodium Citrate	0.09%
----------------	-------

Cetyl Alcohol	0.12%
---------------	-------

Stearyl Alcohol	0.08%
-----------------	-------

Polymer-Solvent Mixture	
-------------------------	--

Copolymer #1	2.00%
--------------	-------

Cyclomethicone D4	10.00%
-------------------	--------

myristoleic acid	0.30%
------------------	-------

Methylchloroisothiazolinone **Methylisothiazolinone**

	0.03%
--	-------

Perfume	0.33%
---------	-------

Benzyl Alcohol	0.50%
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---

DETD . . . Hydroxyethylcellulose [1]

	1.23%
--	-------

Xanthan Gum	0.25%
-------------	-------

Citric Acid	0.02%
-------------	-------

Sodium Citrate	0.09%
----------------	-------

Cetyl Alcohol	0.12%
---------------	-------

Stearyl Alcohol	0.08%
-----------------	-------

Polymer-Solvent Mixture	
Copolymer #1	2.00%
Cyclomethicone D4	6.58%
myristoleic acid	0.30%
Methylchloroisothiazolinone	<b>Methylisothiazolinone</b>
	0.03%
Perfume	0.33%
Benzyl Alcohol	0.50%

---

DETD	. . . Modified Hydroxyethylcellulose [1]	1.23%
Xanthan Gum		0.25%
Citric Acid		0.02%
Sodium Citrate		0.09%
Cetyl Alcohol		
Stearyl Alcohol		0.08%
Polymer-Solvent Mixture		
Copolymer #1		2.00%
Cyclomethicone D4		5.7%
myristoleic acid		0.30%
Methylchloroisothiazotinone	<b>Methylisothiazolinone</b>	0.03%
Perfume		0.33%
Benzyl Alcohol		0.50%

---

DETD	. . . Modified Hydroxyethylcellulose [1]	1.23%
Xanthan Gum		0.25%
Citric Acid		0.02%
Sodium Citrate		0.09%
Cetyl Alcohol		0.12%
Stearyl Alcohol		0.08%
Polymer-Solvent Mixture		
Copolymer #1		2.00%
Isododecane		4.97%
myristoleic acid		0.30%
Methylchloroisothiazolinone	<b>Methylisothiazolinone</b>	0.03%
Perfume		0.33%
Benzyl Alcohol		0.50%

---

DETD	. . . (and)	0.50
Stearyl Alcohol	sup. [5]	
Glyceryl Tribehenate		0.75
Dimethicone		1.00
Tocopheryl Acetate		0.10
DEA-Cetyl Phosphate		0.20
Phase C		
Water		2.00
Triethanolamine 99%		0.60
Phase D		
Water		2.00
Butylene Glycol		2.00
DMDM Hydantoin (and)		0.25
<b>Iodopropynyl Butylcarbamate</b> sup. [6]		
dL Panthenol		1.00
Phase E		
Cyclomethicone D4		4.00
Copolymer #2		1.00
oleic acid		0.36

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CLM What is claimed is:

- . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units; wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .
- . . the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units p3 wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .
- . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and c.) dissolving or dispersing the. . .
- . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .
- . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .
- . . wherein the fatty acid forms a complex with the nitrogen containing functional group of the B monomer units wherein the **weight ratio** of the copolymer to the fatty acid is from about 50:1 to about 1:1; and B.) a volatile, hydrophobic solvent. . .

L11 ANSWER 14 OF 16 USPATFULL

ACCESSION NUMBER: 96:96772 USPATFULL  
 TITLE: Topical personal care composition containing polysiloxane-grafted adhesive polymer and drying aid  
 INVENTOR(S): Hughes, Kendrick J., Cincinnati, OH, United States  
 PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
	-----	-----	-----
PATENT INFORMATION:	US 5567428		19961022
APPLICATION INFO.:	US 1995-566599		19951204 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-405415, filed on 15 Mar 1995, now abandoned which is a continuation of Ser. No. US 1993-113570, filed on 27 Aug 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Nutter, Nathan M.		
LEGAL REPRESENTATIVE:	Lewis, Leonard W., Sabatelli, Anthony D., Dabbieri, David K.		
NUMBER OF CLAIMS:	23		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2149		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . fluids and waxes having from 1 to about 100 siloxy units, silanes, and silicone resins and mixtures thereof; wherein the **weight ratio** of said polysiloxane-grafted polymer (a) to said drying aid (c) is about 100:1 or less.

SUMM wherein the **weight ratio** of said polysiloxane-grafted polymer (a) to said drying aid (c) is about 100:1 or less.

SUMM . . . mixtures thereof, which is soluble in said solvent at 45.degree. C. and is water insoluble at 25.degree. C., wherein the **weight ratio** of said polysiloxane grafted polymer to said drying aid is about 100:1 or less; and

DETD The compositions of the present invention also comprise a nonvolatile drying aid for the polysiloxane-grafted polymer. The **weight ratio** of the polysiloxane-grafted polymer to the silicone resin

should generally be about 100:1 or less, and will generally be from. .

DETD		--
Hydroxethyl Cellulose	0.50	--
Cetyl Hydroxyethyl Cellulose	sup.4	
	--	1.25
Ceteareth-20	0.35	--
Fragrance	0.20	0.20
Dimethicone copolyol	0.20	--
Citric Acid	0.13	0.13
Methylchloroisothiazolinone (and)		
	0.04	0.04
<b>methylisothiazolinone</b>		
Sodium Chloride	0.01	0.01
Xanthan Gum	--	0.20

.sup.1 Alternatively, conditioner compositions are prepared with polymer premixes from Example V and VI.

DETD		15.00
Premix		
Silicone gum	0.50	
Dimethicone, 350 cs fluid		
	0.50	
Main Mix		
Water	QS100	
Ammonium lauryl sulfate		
	11.00	
Cocamide MEA	2.00	
Ethylene glycol distearate		
	1.00	
Xanthan Gum	1.20	
Methylchloroisothiazolinone (and)		
	0.04	
<b>methylisothiazolinone</b>		
Citric Acid to pH 4.5 as needed		

DETD		Oil	2.00
Stearyl Alcohol	1.00		
Shea Butter	1.00		
Cetyl Alcohol	1.00		
Ceteareth-20	2.50		
Ceteth-2	1.00		
Ceteth-10	1.00		
DEA-Cetyl Phosphate	1.00		
Phase D			
Dihydroxyacetone	3.00		
Phase E			
Butylene Glycol	2.00		
DMDM Hydantoin (and)	0.25		
<b>Iodopropynyl Butylcarbamate</b>			
Phase F			
Fragrance	1.00		
Cyclomethicone	2.00		

.sup.1 Alternatively, the artificial tanning compositions are prepared using the Copolymer Premixes of Examples V and VI.

DETD		Stearyl Alcohol	sup.6
	0.50		
Glyceryl Tribehenate	sup.7		
	0.75		
Dimethicone	1.00		
Tocopheryl Acetate	0.10		

DEA-Cetyl Phosphate	0.20
Phase C	
Water	2.00
Triethanolamine 99%	0.60
Phase D	
Water	2.00
Butylene Glycol	2.00
DMDM Hydantoin (and)	0.25
<b>Iodopropynyl Butylcarbamate</b> .sup.8	
dL Panthenol	1.00
Phase E	
Cyclomethicone	1.00

.sup.1 Available as Carbopol .RTM. 954 from B. F. Goodrich.

.sup.2 Available as Carbopol .RTM. 1342. . .

CLM What is claimed is:

. . . fluids and waxes having from 1 to about 100 siloxy units, silanes, and silicone resins, and mixtures thereof; wherein the **weight ratio** of said polysiloxane-grafted adhesive polymer to said drying aid is about 100:1 or less.

2. A composition as in claim 1, wherein the **weight ratio** of polysiloxane-grafted adhesive polymer to said drying aid is from about 5:1 to about 75:1.

3. A composition as in claim 2, wherein the **weight ratio** of said polysiloxane-grafted adhesive polymer to said drying aid is from about 7:1 to about 50:1.

4. A composition as in claim 3, wherein the **weight ratio** of said polysiloxane-grafted adhesive polymer to said drying aid is from about 10:1 to about 35:1.

L11 ANSWER 15 OF 16 USPATFULL

ACCESSION NUMBER: 96:67677 USPATFULL

TITLE: Personal treatment compositions and/or cosmetic compositions containing enduring perfume

INVENTOR(S): Trinh, Toan, Maineville, OH, United States  
Bacon, Dennis R., Milford, OH, United States  
Trandai, Angie, West Chester, OH, United States

PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5540853		19960730
APPLICATION INFO.:	US 1994-326457		19941020 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	McFarlane, Anthony		
ASSISTANT EXAMINER:	Hailey, Patricia L.		
LEGAL REPRESENTATIVE:	Aylor, Robert B.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3562		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM The **weight ratio** of the highly arylated polysiloxane fluid to the spreading agent will, in general, be between about 1000:1 and about 1:1, . . .

SUMM The **weight ratio** of the nonvolatile silicone fluid, having refractive index below about 1.46, to the silicone resin component, when used, is preferably. . .

DETD . . . cyclotetrasiloxane

	1.70
Main Mix	
Water	QS100
Cetyl Alcohol	1.00
Quaternium 18.sup.(2)	0.85
Stearyl Alcohol	0.70
Hydroxethyl cellulose	0.50
Ceteareth-20	0.35
Perfume A	0.20
Dimethicone copolyol	0.20
Citric Acid	0.13
Methylchloroisothiazolinone (and)	0.04
<b>methylisothiazolinone</b>	
Sodium Chloride	0.01

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.sup.(1) Commercially available from General Electric.  
 .sup.(2) Dimethyl Di(Hydrogenated Tallow) Ammonium Chloride

DETD . . . . Oil	2.00
Stearyl Alcohol	1.00
Shea Butter	1.00
Cetyl Alcohol	1.00
Ceteareth-20	2.50
Ceteth-2	1.00
Ceteth-10	1.00
Phase C	
DEA-Cetyl Phosphate	0.75
Phase D	
Dihydroxyacetone	3.00
Phase E	
Butylene Glycol	2.00
DMDM Hydantoin (and)	
<b>Iodopropynyl Butylcarbamate</b>	0.25
Phase F	
Perfume B	1.00
Cyclomethicone	2.00

---

.sup.(1) Available as Carbopol .RTM. 934 from B. F. Goodrich.  
 .sup.(2) Available as Carbopol .RTM. . . .

DETD . . . . Alcohol.sup.(6)	
Glyceryl Tribehenate.sup.(7)	0.75
Dimethicone	1.00
Tocopheryl Acetate	0.10
DEA-Cetyl Phosphate	0.20
Phase C	
Water	2.00
Triethanolamine 99%	0.60
Phase D	
Water	2.00
Perfume B	0.05
Butylene Glycol	2.00
DMDM Hydantoin (and)	0.25
<b>Iodopropynyl Butylcarbamate.sup.(8)</b>	
dL Panthenol	1.00
Phase E	
Cyclomethicone	1.00

---

.sup.(1) Available as Carbopol .RTM. 954 from B. F. Goodrich.  
 .sup.(2) Available as Carbopol .RTM. 1342. . . .



TITLE: Admixtures of iodopropargyl compounds and a formaldehyde donor  
INVENTOR(S): Rosen, Marvin, Totowa, NJ, United States  
Iandoli, Kenneth J., Hawthorne, NJ, United States  
PATENT ASSIGNEE(S): Lonza, Inc., Fair Lawn, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4844891		19890704
APPLICATION INFO.:	US 1988-151702		19880203 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Willis, Prince E.		
LEGAL REPRESENTATIVE:	Lewen, Bert J., Sternberg, Henry		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
LINE COUNT:	456		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM Admixtures of methylchloroisoithiazolinone and **methylioithiazolinone** (Kathon CG, a trademark of Rohm & Haas) are unstable in the presence of organic sulfur compounds, ingredients commonly used. . . .

CLM What is claimed is:  
. . . nontoxic, nonodiferous formaldehyde donor and (b) a halopropynyl compound selected from iodopropargyl esters, ethers, acetals, carbamates and carbonates, wherein the **weight ratio** of component (a) to (b) is from 50:1 to 1:1.

5. The composition of claim 1 wherein the **weight ratio** of component (a) to (b) is from 20:1 to 10:1.

IT 6440-58-0D, DMDMH, mixts. with halopropynyl derivs. 51229-78-8D, mixts. with halopropynyl derivs. **55406-53-6D**, 3-Iodo-2-propynylbutyl carbamate, mixts. with formaldehyde donors 78491-02-8D, mixts. with halopropynyl derivs. 118215-45-5D, mixts. with halopropynyl derivs. (preservatives for household products, synergistic)

L17 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2003 ACS

AN 2003:20934 CAPLUS

DN 138:75914

TI Ether diamines and N-alkyldiaminopropanes as components of food-grade aqueous lubricating oils for conveyor belts and chains

IN Ciampi, Luigi

PA Polygon Chemie AG, Switz.

SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1273653	A1	20030108	EP 2001-116240	20010704
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CN 1394942	A	20030205	CN 2002-140237	20020702
PRAI	EP 2001-116240	A	20010704		

OS MARPAT 138:75914

AB Aq. food-grade lubricating oils for conveyor belts and chains are based on: (1) ether diamines and their salts, based on N-alkyldipropylenediamines, in addn. to other diluents and additives, of general structure RO-(CH<sub>2</sub>)<sub>k</sub>-NH-(CH<sub>2</sub>)<sub>l</sub>-NH<sub>2</sub>.(HX)<sub>m</sub>, in which R = C<sub>6</sub>-22-alkyl, alkenyl, or Ph (optionally substituted with NH<sub>2</sub>, imino, OH, halogen, or carboxy); X is an inorg. or org. acid-derived anion; k and l = 1-6, and m = 0-2, and (2) N-alkyldiaminopropanes, of general structure R<sub>2</sub>R<sub>1</sub>N-A-NH<sub>2</sub> (R<sub>1</sub> = C<sub>8</sub>-22-alkyl or alkenyl; R<sub>2</sub> = H, C<sub>1</sub>-4-alkyl or alkoxyalkyl, or A-NH<sub>2</sub>; and A = C<sub>1</sub>-8-alkenyl). The lubricating oils are formulated as a conc. contg. 0-99 wt.% of the etherdiamine and 30-100 wt.% of the diaminopropane, in **water**. The addn., the compn. can contain 0.1-99 wt.% of a fatty acid ester, selected from 2-ethylhexyl palmitate, rape oil Me ester, dodecyl oleate, and trimethylolpropane trioleate (or its dimer), as well as an alc. (e.g., MeOH, EtOH, PrOH, iso-PrOH, n-BuOH, and ethylene glycol-propylene glycol copolymer), in addn. to **biocides** (including formaldehyde precursors).

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Aq. food-grade lubricating oils for conveyor belts and chains are based on: (1) ether diamines and their salts, based on N-alkyldipropylenediamines, in addn. to other diluents and additives, of general structure RO-(CH<sub>2</sub>)<sub>k</sub>-NH-(CH<sub>2</sub>)<sub>l</sub>-NH<sub>2</sub>.(HX)<sub>m</sub>, in which R = C<sub>6</sub>-22-alkyl, alkenyl, or Ph (optionally substituted with NH<sub>2</sub>, imino, OH, halogen, or carboxy); X is an inorg. or org. acid-derived anion; k and l = 1-6, and m = 0-2, and (2) N-alkyldiaminopropanes, of general structure R<sub>2</sub>R<sub>1</sub>N-A-NH<sub>2</sub> (R<sub>1</sub> = C<sub>8</sub>-22-alkyl or alkenyl; R<sub>2</sub> = H, C<sub>1</sub>-4-alkyl or alkoxyalkyl, or A-NH<sub>2</sub>; and A = C<sub>1</sub>-8-alkenyl). The lubricating oils are formulated as a conc. contg. 0-99 wt.% of the etherdiamine and 30-100 wt.% of the diaminopropane, in **water**. The addn., the compn. can contain 0.1-99 wt.% of a fatty acid ester, selected from 2-ethylhexyl palmitate, rape oil Me ester, dodecyl oleate, and trimethylolpropane trioleate (or its dimer), as well as an alc. (e.g., MeOH, EtOH, PrOH, iso-PrOH, n-BuOH, and ethylene glycol-propylene glycol copolymer), in addn. to **biocides** (including formaldehyde precursors).

IT Lubricating oil additives

(**biocides**, formaldehyde releasers; ether diamines and N-alkyldiaminopropanes as components of food-grade aq. lubricating oils for conveyor belts and chains)

IT **Biocides**

(lubricating oil additives, formaldehyde releasers; ether diamines and N-alkyldiaminopropanes as components of food-grade aq. lubricating oils for conveyor belts and chains)

IT 52-51-7, 2-Bromo-2-nitro-1,3-propanediol 2634-33-5, 1,2-Benzisothiazol-

3(2H)-one 2682-20-4, 2-Methyl-3(2H)-isothiazolone 3586-55-8,  
Methanol, [1,2-ethanediylbis(oxy)]bis- 3811-73-2, 2-Pyridinethiol-1-  
oxide sodium salt 4719-04-4, 1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol  
26172-55-4, 5-Chloro-2-methyl-3(2H)-isothiazolone 26530-20-1,  
3(2H)-Isothiazolone, 2-octyl- 35691-65-7, 1,2-Dibromo-2,4-dicyanobutane  
55406-53-6, 3-Iodo-2-propynylbutylcarbamate 66204-44-2,  
Oxazolidine, 3,3'-methylenebis[5-methyl  
RL: MOA (Modifier or additive use); USES (Uses)  
(biocide; ether diamines and N-alkyldiaminopropanes as  
components of food-grade aq. lubricating oils for conveyor belts and  
chains)

=> d 117 2-25 ibib, kwic

L17 ANSWER 2 OF 25 USPATFULL

ACCESSION NUMBER: 2003:71993 USPATFULL  
TITLE: Starch compositions containing biodegradation  
inhibitors and methods for the prevention of starch  
biodegradation  
INVENTOR(S): Sweeny, Philip Gerdon, Hackettstown, NJ, UNITED STATES  
Borokhov, Olga, Chatham, NJ, UNITED STATES  
Lutz, Patrick Jay, Nazareth, PA, UNITED STATES  
Tafesh, Ahmed Mohammed, Flemington, NJ, UNITED STATES  
PATENT ASSIGNEE(S): LONZA INC. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003050280	A1	20030313
APPLICATION INFO.:	US 2002-183690	A1	20020625 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-301773P	20010628 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DARBY & DARBY P.C., P. O. BOX 5257, NEW YORK, NY, 10150-5257	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
LINE COUNT:	572	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . leather, rope, paper pulp, plastics, fuel, oil, and rubber and  
metal working fluids. Moreover, the control of slime-producing bacteria  
and **fungi** in pulp and paper mills and in cooling towers is a  
matter of substantial commercial importance.

SUMM . . . consist of complex carbohydrates dispersed in an aqueous medium  
which provide an easily assimilated food source for bacteria, yeast and  
**fungi**. Consequently, starch slurries and pastes are regularly  
subjected to microbial contamination, even at elevated temperatures.  
Thermophilic, acid producing microorganisms are. . .

SUMM . . . compounds have long been known to be useful as preservatives.  
Compounds such as the halopropynyl carbamates are known for their  
**fungicidal** activity. However, they are costly and, as a result,  
have only found applications in specialty areas where the high costs. . .

SUMM . . . a trademark of Dow Chemical Company). It has the disadvantage  
of being a solid product which must be solubilized in **water**  
before it can be used in the end product. In aqueous solution it  
exhibits pH drift and causes formulation problems, . . .

SUMM [0011] Alkyl parabens (e.g., methyl, ethyl, and propyl), which are  
useful as **fungicides**, have limited bactericidal action. They  
are generally solubilized in oil since they are poorly soluble in  
**water**, leading to formulation difficulties for personal care and

household products. They are often inactivated by commonly used materials such as. . .

SUMM [0012] More recently, less toxic substances have been used as preservatives, including **iodopropynyl butylcarbamate**, polyaminopropyl biguanide, bis(3-aminopropyl) dodecylamine, benzethonium chloride, methyldibromo glutaronitrile, and ethylenediaminetetraacetic acid.

SUMM . . . on that product, such as instability, odor and breakdown of product, is greater. Moreover, some of these compounds, such as **iodopropynyl butylcarbamate**, are costly, so the use of large amounts of these compounds is not economical.

DETD . . . uncooked ethoxylated starch slurry (Ethylex 2025, Staley, Decatur Ill.). A fresh starch slurry solution containing 23% solids in sterile tap **water** was prepared on the date of experiment (pH=7.8, T=37.degree. C.). The test preservatives were added to 70 ml of the. . .

DETD . . . grown on Tryptic Soy Agar. Inoculum was prepared by washing the surface of the 18-24 hours slants with phosphate buffer **water** (pH=7.2) in order to obtain a microbial count in the inoculum of 1-2.times.10.sup.9. Each sample was treated with the inoculum to achieve a count of 5.times.10.sup.6 cfu/ml of bacteria in the test samples. The unpreserved control contained no **biocide**. The test samples were incubated at 37.degree. C. on an orbital shaker (80-100 rpm) for 4, and 24 hour of. . .

DETD . . . level of microorganisms of more than 99.99% (4 Logs) compared to the unpreserved control was selected as the criteria of **biocide** effectiveness for the uncooked starch slurry test.

IT 77-71-4, 5,5-Dimethylhydantoin 116-25-6, 1-Methylol-5,5-dimethylhydantoin 2634-33-5, 1,2-Benzisothiazolin-3-one 2682-20-4, 2-Methyl-4-isothiazolin-3-one 6440-58-0, 1,3-Dimethylol-5,5-dimethylhydantoin 16228-00-5, 3-Methylol-5,5-dimethylhydantoin 26172-55-4, 5-Chloro-2-methyl-4-isothiazolin-3-one (antimicrobial agents of formaldehyde donor compds. or its combination with isothiazolone compds. for starch slurry and paste)

L17 ANSWER 3 OF 25 USPATFULL

ACCESSION NUMBER: 2003:57016 USPATFULL

TITLE: Stable preservative formulations comprising halopropynyl compounds and butoxydiglycol solvent

INVENTOR(S): Borokhov, Olga, Chatham, NJ, UNITED STATES  
Lutz, Patrick Jay, Nazareth, PA, UNITED STATES  
Maroski, John G., Bethlehem, PA, UNITED STATES

PATENT ASSIGNEE(S): Lonza Inc., Fair Lawn, NJ, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003039580	A1	20030227
APPLICATION INFO.:	US 2002-85496	A1	20020226 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-271760P	20010226 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DARBY & DARBY P.C., 805 Third Avenue, New York, NY, 10022	
NUMBER OF CLAIMS:	30	
EXEMPLARY CLAIM:	1	
LINE COUNT:	799	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . is also directed to methods of use of the preservative formulations for inhibiting or retarding the growth of bacteria or fungi.

SUMM . . . also directed to methods of using the preservative formulations for inhibiting or retarding the growth of microbes, including bacteria and/or **fungi**.

SUMM . . . hard surface cleaners, fabric softeners, and various industrial products, require preservatives to protect against contamination and growth of bacteria or **fungi**. In particular, personal care product compositions are a nutrient-rich media which benefit from the incorporation of preservatives to control the. . .

SUMM . . . demand for stable, broad-spectrum preservatives has increased. For example, formaldehyde and isothiazolone derivatives have been shown to be highly effective **biocidal** preservatives. U.S. Pat. No. 3,987,184, to Foelsch discloses 1,3-dimethylol-5,5-dimethylhydantoin (DMDMH) as a useful formaldehyde donor compound for the preservation of.

SUMM [0006] Isothiazolone is highly toxic and very unstable under most circumstances, such as when present in **water** or other reactive molecules. To make the compound stable, large amounts of cationic salts are added and the isothiazolone is. . .

SUMM [0007] While highly useful for controlling bacteria, **fungi** and other contaminating microbes in end-use products, the instability of isothiazolone under less than ideal conditions results in a marked. . .

SUMM . . . easy to formulate and have low levels of stable isothiazolone, so that it is nontoxic and non-irritating, but still provides **biocidal** activity. Stable isothiazolone formulations which are effective at less acidic pH levels have not heretofore been easily obtained.

SUMM [0010] U.S. Pat. No. 6,121,302 describes highly stable, preservative formulations having broad spectrum **biocidal** activity, which can be prepared by admixing one or more isothiazolones with a formaldehyde donor, such as alkanol-substituted dimethylhydantoins, and.

SUMM . . . an unexpected synergistic antimicrobial formulation demonstrating synergistic properties, i.e. the formulation demonstrates antimicrobial properties which are greater than the additive **fungicidal** properties of halopropynyl and butoxydiglycol used alone.

SUMM [0017] The invention is also directed to methods for killing or retarding the growth of microbes (such as bacteria and/or **fungi**) in a composition susceptible to growth, comprising adding to said composition an effective amount of a preservative formulation of the. . .

SUMM . . . invention is also directed to methods of making liquid preservative formulations, comprising dissolving a halopropynyl compound in butoxydiglycol solvent. Additional **water**-based additives can be added to the halopropynyl-butoxydiglycol solution.

SUMM [0020] As used herein, the term "**biocidal**" means capable of killing microorganisms, including bacteria, yeast, algae and **fungi**.

SUMM . . . As used herein, the term "antimicrobial" means capable of killing and/or inhibiting growth of microorganisms, including bacteria, yeast, algae and **fungi**.

SUMM [0022] As used herein, the terms "antifungal" or "**fungicidal**" are used interchangeably, and mean capable of killing and/or inhibiting the growth of **fungi**.

SUMM [0033] A first active component of the stabilized preservative system of the invention is a halopropynyl compound, a **fungicidally** active iodopropynyl derivative. Suitable halopropynyl compounds are within the general structure (I):

SUMM [0036] Examples of compounds which may be used as the halopropynyl compound of this invention are especially the **fungicidally** active iodopropynyl derivatives. In this regard, please see U.S. Pat. Nos. 3,923,870, 4,259,350, 4,592,773, 4,616,004, 4,719,227, and 4,945,109, the disclosures. . .

SUMM . . . succinic anhydride and cis-5-norbornene-endo-2,3-dicarboxylic anhydride. Where hydrophilicity is desired, the sodium salts may be used because of their extremely high **water** solubility. Preferred carboxylic acid anhydrides include succinic, itaconic, phthalic, tetrachlorophthalic, and diglycolic anhydride. Such compounds are defined in U.S. Pat. . . .

SUMM [0052] Formulations containing **fungicidal** halopropynyl compounds and butoxydiglycol also unexpectedly demonstrate a broad spectrum antimicrobial property, including bactericidal and **fungicidal** activity.

SUMM [0053] Some additional solvents which may also be present include **water** and other hydroxyl solvents. Hydroxyl solvents include mono-, di- and polyhydroxyl alcohols. For example, monohydroxyl alcohols having from about 1. . . .

SUMM . . . (for example, an isothiazolone derivative; a hydantoin formaldehyde donor, such as an alkanoldimethylhydantoin; and a stabilizer) can be added. Any **water**-based additive can be added to the halopropynyl-butoxydiglycol solution.

SUMM . . . cleaner, surfactant solutions, household polishes, automotive wax, air freshener, carpet shampoo, pre-spotter, liquid laundry products, pesticide for growing crops, non-food **fungicide**, non-food herbicide, non-food insecticide, non-food repellent, non-food biopesticide, anti-tarnish products, pre-moistened sponges, pre-moistened mops, clay slurries, coatings, polymer emulsion, natural latex, mineral slurries, pigment slurries, **water**-based building compounds, caulk, sealer, metal working fluids, metal cleaning fluids, hydraulic fluids, electrodeposition fluids, industrial process **water**, air washer systems, oil field injection **water**, liquid hydrocarbon fuels, industrial recirculating cooling **water**, lubricants, and other materials which can be attacked or decomposed by microorganisms.

SUMM [0081] Microorganisms which effect contamination or degradation of products include bacteria, **fungi**, yeasts, algae, and slime. Microorganisms of the following genera are examples: Alternaria, such as Alternaria tenuis, Aspergillus, such as Aspergillus. . . .

DETD . . . bacteria, comprising E. coli (ATCC 8739), P. aeruginosa (ATCC 9027), and S. aureus (ATCC 6538), and inhibition of a mixed **fungi**, comprising A. niger (ATCC 16404) and C. albicans (ATCC 10231). The results are depicted below, in Table 3.

DETD . . . butylene glycol solvent.

Table 3

#### Screening of Halopropynyl Solutions for Antifungal and Antibacterial Properties

SAMPLE	Conc. Bacteria (ppm) (cfu/ml)	DAY 0		DAY 14		DAY 28
		Bacteria	<b>Fungi</b>	Bacteria	<b>Fungi</b>	
		(cfu/ml)	(cfu/ml)	(cfu/ml)	(cfu/ml)	(cfu/ml)
A (L58)	500	8.00 .times.	10.sup.6	1.00 .times.	10.sup.5	<10
	<10	<10	<10			
B (L64)	. . .					
DETD	. . . w/w %					

Sodium lauryl ether	35.0%
triethanolamine	25.0%
lauryl sulfate	
cocomide DEA	3.0%
anhydrous protein	1.0%
sterile DI <b>water</b>	36.0%
10% citric acid	0.3%

DETD . . . below.  
TABLE 4

Antifungal and Antibacterial Screening of Propynyl  
Compositions in Protein Shampoo Formulations

SAMPLE	Conc. Bacteria (ppm) (cfu/ml)	DAY 0		DAY 14		DAY 28
		Bacteria Fungi (cfu/ml)	Fungi (cfu/ml)	Bacteria (cfu/ml)	Fungi (cfu/ml)	(cfu/ml)
A	500	9.00 .times.	10.sup.6	1.00 .times.	10.sup.5	<10
(L58)	<10	<10	<10			

F 500 8.00 . . .  
DETD [0101] The data in Table 5 also demonstrates the broader efficacy demonstrated by formulations containing a **fungicidal** halopropynyl compound and butoxydiglycol. The formulations of the invention unexpectedly demonstrate antibacterial properties, in addition to the known **fungicidal** properties of the halopropynyl compound.

CLM What is claimed is:  
. . . A method of making a liquid preservative formulation, comprising dissolving a halopropynyl compound in a butoxydiglycol, and optionally adding a **water**-based additive.

29. The method of claim 27, wherein said **water**-based additive is selected from the group consisting of an isothiazolone derivative, an alkanol substituted dialkylhydantoin, and a stabilizer.

IT 624-66-8D, derivs. 1003-07-2D, Isothiazolinone, derivs. 2634-33-5,  
Benzisothiazolone 2682-20-4, 2-Methyl-4-isothiazolin-3-one  
26172-55-4, 5-Chloro-2-methyl-4-isothiazolin-3-one 26529-99-7  
26530-20-1, 2-n-Octyl-4-isothiazolin-3-one 26542-23-4,  
4,5-Dichloro-2-methyl-4-isothiazolin-3-one 55406-53-6,  
3-Iodo-2-propynyl butyl carbamate 71091-90-2 128893-12-9  
301839-17-8 452922-41-7 452922-42-8 452922-43-9 452922-44-0  
452922-45-1 452922-46-2 452922-47-3  
(stable preservative formulations comprising)

L17 ANSWER 4 OF 25 USPATFULL

ACCESSION NUMBER: 2003:155658 USPATFULL  
TITLE: Microbicidal compositions and methods using combinations of propiconazole and N-alkyl heterocycles and salts thereof  
INVENTOR(S): Oppong, David, Cordova, TN, United States  
Whittemore, Marilyn S., Memphis, TN, United States  
Ellis, M. Sheldon, Cordova, TN, United States  
Miller, Jr., Robert H., Oakland, TN, United States  
Zhou, Xiaugdong, Memphis, TN, United States  
Elmore, Michael E., Collierville, TN, United States  
PATENT ASSIGNEE(S): Buckman Laboratories International, Inc., Memphis, TN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6576629	B1	20030610
APPLICATION INFO.:	US 1999-369298		19990806 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Pryor, Alton N.		
LEGAL REPRESENTATIVE:	Morgan, Lewis & Bockius LLP		
NUMBER OF CLAIMS:	9		

EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)  
LINE COUNT: 995  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . as well as their intrinsic characteristics make them susceptible to growth, attack, and degradation by common microorganisms such as algae, **fungi**, yeasts, and bacteria. These microorganisms may be introduced during a manufacturing or other industrial process, by exposure to air, tanks, . . .

SUMM . . . not limited to, latexes, surfactants, dispersants, stabilizers, thickeners, adhesives, starches, waxes, proteins, emulsifying agents, cellulose products, metal working fluids, cooling **water**, waste **water**, aqueous emulsions, aqueous detergents, coating compositions, paint compositions, and resins formulated in aqueous solutions, emulsions or suspensions. These systems frequently contain relatively large amounts of **water** and organic material causing them to be environments well-suited for microbiological growth and thus attack and degradation.

SUMM . . . decreased pH, emulsion breaking, color change, and gelling. Additionally, microbiological deterioration of aqueous systems can cause fouling of the related **water**-handling system, which may include cooling towers, pumps, heat exchangers, and pipelines, heating systems, scrubbing systems, and other similar systems.

SUMM . . . aqueous systems, particularly in aqueous industrial process fluids, is slime formation. Slime formation can occur in fresh, brackish or salt **water** systems. Slime consists of matted deposits of microorganisms, fibers and debris. It may be stringy, pasty, rubbery, tapioca-like, or hard, . . . forms of bacteria which secrete gelatinous substances that envelop or encase the cells. Slime microorganisms also include filamentous bacteria, filamentous **fungi** of the mold type, yeast, and yeast-like organisms. Slime reduces yields in production and causes plugging, bulking, and other problems in industrial **water** systems.

SUMM . . . is a broad spectrum microbicide used in the pulp and paper industry. Kathon is also recommended to control bacteria and **fungi** in **water**-based paper coatings and coating components. Kathon is available from Rohm and Haas, Philadelphia Pa. and as Busan.RTM. 1078 from Buckman. . .

SUMM Bronopol: 2-bromo-2-nitropropane-1,3-diol. Bronopol is available as MYACIDE.RTM. from ANGUS Chemical Company, Northbrook Ill. Bronopol is used in **water** treatment, oil production fluids, waste injection wells, and with pulp and paper. The chemical formula of bronopol is: ##STR4##

SUMM IPBC: Iodopropargyl butyl carbamate. IPBC can be obtained from Troy Chemical, Newark, N.J. IPBC is an effective **fungicide**, particularly in surface coating compositions, such as paint formulations. IPBC is disclosed in U.S. Pat. Nos. 3,923,870 and 5,219,875. IPBC. . .

SUMM BIT: 1,2-benzisothiazoline-3-one. 1,2-Benzisothiazoline-3-one is a **biocide** useful for a variety of aqueous systems, such as metalworking fluids, paint, adhesives, starch-based-products, cellulose ether solutions, resin and rubber. . .

SUMM Propiconazole: (RS)-1-2-[(2,4-dichlorophenyl)-4-propyl-1,3-dioxalan-2-ylmethyl]-1H-1,2,4-triazole. Propiconazole is a known **fungicide** (U.S. Pat. Nos. 5,627,188, 5,567,705, 5,403,844, 5,326,777, 5,250,559 and 5,200,421). Propiconazole has the following chemical structure: ##STR10##

SUMM . . . alkyl chain defined by CH.sub.3C.sub.nH.sub.2n-- may be branched or unbranched. Branched alkyl chains may lose some of their solubility in **water** or other aqueous systems. Unbranched alkyl groups are preferred.

SUMM . . . also employed in aqueous systems used in industrial processes such as metal working fluids, cooling waters (both intake cooling **water** and effluent cooling **water**), and waste



waters including waste waters or sanitation waters undergoing treatment of the waste in the **water**, e.g. sewage treatment.

SUMM . . . may be contacted by mixing the propiconazole and N-alkyl heterocyclic compound, its salt, or a mixture thereof into the pulp/white **water** mixture, preferably prior to the pulp reaching the formation wire.

SUMM . . . mixture thereof may be added into pulp slurries in the headbox, in the substrate forming solution, or in the white **water** system to treat the **water** system itself or for incorporation into the body of the paper. Alternatively, as with other known microbicides, the combination of. . .

DETD Examples 1-4 illustrate potentiation of propiconazole by DDM. Each formulation was tested against various **fungi** according to ASTM E599-84 with an inoculum of approximately 10<sup>sup.6</sup> spores/mL.

DETD . . . 80

Pzole/DDM<sup>sup.2</sup> 10 200 20

.sup.1BUSAN .RTM. 1292 is an emulsifiable concentrate available from Buckman Laboratories, Inc. containing propiconazole (24.7%), emulsifiers, and **water**

.sup.2Pzole/DDM: 10% Propiconazole, 40% Dodecylmorpholine (DDM)

DETD . . . 80

Pzole/DDM<sup>sup.2</sup> 10 400 40

.sup.1BUSAN .RTM. 1292: is an emulsifiable concentrate available from Buckman Laboratories, Inc. containing propiconazole (24.7%), emulsifiers, and **water**

.sup.2Pzole/DDM: 10% Propiconazole, 40% Dodecylmorpholine (DDM)

DETD . . . 20

Pzole/DDM<sup>sup.2</sup> 10 50 5

.sup.1BUSAN .RTM. 1292: is an emulsifiable concentrate available from Buckman Laboratories, Inc. containing propiconazole (24.7%), emulsifiers, and **water**

.sup.2Pzole/DDM: 10% Propiconazole, 40% Dodecylmorpholine (DDM)

DETD . . . 80

Pzole/DDM<sup>sup.2</sup> 10 400 40

.sup.1BUSAN .RTM. 1292: is an emulsifiable concentrate available from Buckman Laboratories, Inc. containing propiconazole (24.7%), emulsifiers, and **water**

.sup.2Pzole/DDM: 10% Propiconazole, 40% Dodecylmorpholine (DDM)

DETD Aqueous suspensions of propiconazole formulations were prepared using five gallon plastic containers. First **water** was added to the five gallon container to a prescribed mark on the side of the container. Next depending upon. . .

DETD . . . 7.80

F4 750 7 8.23

\*BUSAN .RTM. 1292 is an emulsifiable concentrate available from Buckman Laboratories, Inc. containing propiconazole (23.6%), emulsifiers, and **water**;

\*\*DDM: Dodecyl morpholine

DETD . . . 500 21.19 5000 7.88

\*BUSAN .RTM. 1292 is an emulsifiable concentrate available from Buckman Laboratories, Inc. containing propiconazole (23.6%), emulsifiers and **water**;

\*\*BSP .RTM. 2180 is Busperse 2180 contains 60% DDM and is available from Buckman Laboratories, Inc.;

\*\*\*DDM: Dodecyl morpholine

DETD Aqueous suspensions of propiconazole formulations were prepared using five gallon plastic containers. First **water** was added to the five gallon container to a prescribed mark on the side of the container.

Next depending upon. . .  
DETD . . . 7.46  
E4 1000 100.0 6.75

\*BUSAN .RTM. 1292 is an emulsifiable concentrate available from Buckman Laboratories, Inc. containing propiconazole (23.6%), emulsifiers, and **water**

\*\*DDM: Dodecyl morpholine

.sup.3Formulation C contains Busperse 2180 (contains 60% DDM, available from Buckman Laboratories, Inc.), propiconazole, and emulsifiers.

.sup.4Formulation. . .

DETD Pre-pickled hides were placed in a drum to which was then added **water** having a temperature of 78-82.degree. F. and 6% sodium chloride (NaCl). The drum was started and allowed to run for 15 minutes. Next 0.3% formic acid diluted 1:10 in **water** was added to the drum which was then run for 30 minutes. Afterwards, 0.8% sulfuric acid diluted 1:15 in **water** was added to the drum. After running the drum for 2.5 hours, the drum was stopped and the pH of. . . checked. If the pH was between 3.65 and 3.85, the float was drained and the leather was washed with cold **water**. If the pH was lower than 3.65, additional sodium bicarbonate was added and the drum was run for another hour.. . .

DETD . . . week for nine weeks, leather having been treated with propiconazole and a propiconazole/dodecyl morpholine combination was evaluated for growth of **fungi**. Evaluations were made for both the grain and the flesh surface of the leather based on the following scale:

DETD . . . dodecylmorpholine (DDM), and a microbicide sodium 2-mercaptobenzothiazole (Na-2-MBT) were investigated with respect to their ability to prevent the formation of **fungi** in leather. As a control, the formation of **fungi** in untreated (i.e. no formulation treatment) leather was observed.

DETD Pre-pickled hides were placed in a drum to which was then added **water** having a temperature of 78-82.degree. F. and 6% sodium chloride (NaCl). The drum was started and allowed to run for 15 minutes. Next 0.3% formic acid diluted 1:10 in **water** was added to the drum which was then run for 30 minutes. Afterwards, 0.8% sulfuric acid diluted 1:15 in **water** was added to the drum. After running the drum for 2.5 hours, the drum was stopped and the pH of. . . checked. If the pH was between 3.65 and 3.85, the float was drained and the leather was washed with cold **water**. If the pH was lower than 3.65, additional sodium bicarbonate was added and the drum was run for another hour.. . .

DETD Once a week for nine weeks, leather having been treated with propiconazole/dodecyl morpholine/sodium 2-mercaptobenzothiazole combination was evaluated for growth of **fungi**. Evaluations were made for both the grain and the flesh surface of the leather based on the following scale:

CLM What is claimed is:

3. A microbicidal composition according to claim 2, wherein the microorganism is selected from algae, **fungi**, and bacteria.

5. A method according to claim 4, wherein the microorganism is selected from the group consisting of algae, **fungi**, and bacteria.

7. A method according to claim 6, wherein the microorganism is selected from the group consisting of algae, **fungi**, and bacteria.

9. A method according to claim 8, wherein the microorganism is selected from the group consisting of algae, **fungi**, and bacteria.

IT 52-51-7, 2-Bromo-2-nitropropane-1,3-diol 1725-82-2, Iodopropargyl alcohol 1875-92-9D, Dimethylbenzyl ammonium chloride, N-Alkyl 2492-26-4, Sodium 2-mercaptobenzothiazole 2634-33-5,

precipitation reactions and inhomogeneities. The means of preservation are in general added to the. . .

SUMM The **water**-miscible and **water**-mixed cooling lubricants according to the invention can comprise further functional additives, for example castor oil ethoxylates, petroleum sulfonates up to. . . agents and/or antifogging additives. In general, for the application in metal working the aqueous solutions or emulsions produced from the **water**-miscible cooling lubricant concentrate comprise these additives in proportions of 1 to 10% by weight, preferably in proportions of 2 to 5% by weight, relative to the **water**-miscible cooling lubricant concentrate.

SUMM Measurement of the transepidermal **water** loss (TEWL) has today become established as a field-tested criterion for assessing the effect of a cooling lubricant on the deterioration of the barrier function of the skin. Therein is measured the quantity of **water** per unit time and area diffused from the inside to the outside through the skin. High TEWL values indicate high **water** loss and consequently a deterioration of the barrier function, low TEWL values indicate an intact barrier function. As the reference medium is used **water** and the highly aggressive sodium dodecyl sulfate (SDS). The cooling lubricant is conventionally tested in the concentration required for its. . .

SUMM The **water**-miscible cooling lubricant concentrate was produced according to the following formulation examples.

DETD . . . fatty acid alkanolamide 11%  
Oleylether carboxylic acid (degree of ethoxylation 9) 3%  
Trimethylolpropane - trioleate 16%  
C.sub.16 Guebert alcohol 5%  
**Methylisothiazolinone** 0.5%  
3-iodo-propinyl butyl carbamate (IPBC) 0.5%  
**Water** 9%

DETD . . . succinimide 3.5%  
Polypropylene glycol monobutylether 5%  
Synthetic sodium petroleum sulfonate (Petronate .RTM.CR) 4%  
Coconut alkyl guanidinium derivative (Dodigen .RTM.) 1%  
n-octylisothiazolinone 0.6%  
Methylol urea derivative 2.5%  
**Water** 3.9%

DETD . . . ethoxylation 4) 2.5%  
Phosphoric acid partial ester, neutralized with a primary 7%  
alkanolamine  
C.sub.10 monocarboxylic acid (neodecanoic acid) 3%  
n-octyl isothiazolinone 0.3%  
Polymeric cationic microbiocide 0.15%  
**Water** 37.05%

CLM What is claimed is:  
1. A **water**-miscible cooling lubricant concentrate comprising a natural or synthetic mineral oil, an emulsifying agent, a solubilizer, a metal inhibitor and a. . .  
2. The **water**-miscible cooling lubricant concentrate according to claim 1, wherein said preservation and corrosion protection agent comprises: a.sub.1) at least one conversion. . .  
3. The **water**-miscible cooling lubricant concentrate according to claim 1, wherein said preservation and corrosion protection agent comprises: a) at least one component. . .  
4. The **water**-miscible cooling lubricant concentrate according to claim 1, wherein said preservation and corrosion protection agent comprises: a.sub.1) at least one conversion. . .  
5. The **water**-miscible cooling lubricant concentrate according to claim 1, wherein the natural or synthetic mineral oil comprises a paraffinic hydrocarbon, a naphthenic. . .  
6. The **water**-miscible cooling lubricant concentrate according to claim 1, wherein the emulsify agent is at least one anionic or non-ionic surfactant compound,. . .

7. The **water**-miscible cooling lubricant concentrate according to claim 1, wherein the solubilizer comprises **water**, ethylene glycol, butyltriglycol, and straight-chain or branched fatty alcohol with 16 to 24 carbon atoms in a proportion of 5. . .

8. The **water**-miscible cooling lubricant concentrate according to claim 1, further comprising a bactericidal and **fungicidal** active agent in a proportion of 0.1 to 5% by weight.

9. The **water**-miscible cooling lubricant concentrate according to claim 1, which further comprises at least one alkyl succinimide, castor oil ethoxylate, petroleum sulfonate, . . .

10. A **water**-mixed cooling lubricant, which comprises the **water**-miscible cooling lubricant concentrate according to any one of claims 1 to 9 in a proportion of 2 to 25% by weight and **water**, having a pH value between 7.0 and 7.5.

11. A cooling lubricant comprising a natural or synthetic mineral oil, **water**, an emulsifying agent, a solubilizer, a metal inhibitor and a preservation and corrosion protection agent comprising: a) at least one. . . an aromatic carboxylic acid, 3-iodo-2-propynyl-carbamate and methylol urea derivate, wherein said cooling lubricant is 75 to 98% by weight of **water** and has a pH of between 7.0 and 7.5.

. . . or lubricating a metal cutting tool or metal working tool, which comprises applying an aqueous solution or emulsion of the **water**-miscible cooling lubricant concentrate according to any one of claims 1 to 9 to the metal cutting tool or metal working. . .

13. A method for producing a **water**-mixed cooling lubricant, which comprises diluting the **water**-miscible cooling lubricant concentrate according to any one of claims 1 to 9 in a proportion of 2 to 25% by weight with **water** to form an aqueous solution having a pH of between 7.0 and 7.5.

IT 102-71-6D, Triethanolamine, reaction product with boric acid 107-21-1, Ethylene glycol, uses 141-94-6, Hexetidine 143-22-6 463-77-4, Carbamic acid, uses 2682-20-4 7664-38-2D, Phosphoric acid, esters, reaction product with primary alkanolamine, uses 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-13-8, Polypropylene glycol monobutyl ether 9003-27-4, Polyisobutene 9004-98-2D, Polyethylene glycol oleyl ether, carboxylic acid derivs. 10043-35-3D, Boric acid, alkanolamine ester 10043-35-3D, Boric acid, reaction product with triethanolamine 26399-02-0, 2-Ethylhexyl oleate 26530-20-1 26896-20-8, Neodecanoic acid 54018-34-7, Petronate CR 55406-53-6, 3-Iodo-2-propynylbutyl carbamate 57675-44-2, Trimethylolpropane trioleate 76560-18-4, Dodigen 80584-91-4, Irgacor L190

(in water-miscible cooling lubricant conc.)

L17 ANSWER 6 OF 25 USPATFULL

ACCESSION NUMBER: 2002:164425 USPATFULL

TITLE: New cosmetic, personal care, cleaning agent, and nutritional supplement compositions and methods of making and using same

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EXEMPLARY CLAIM:	1	
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention involves new cosmetic, personal care, cleaning agent, **biocidal** agent, functional food, and nutritional supplement compositions. These new compositions incorporate bioactive glass into cosmetics, personal care items, cleaning agents, **biocidal** agents, functional foods, and nutritional supplements. The present invention also involves methods of making and methods of using such compositions.

SUMM [0002] The present invention involves new cosmetic, personal care, cleaning agent, **biocidal** agent, functional food, and nutritional supplement compositions. These new compositions incorporate bioactive glass into cosmetics, cleaning agents, personal care products, **biocidal** agents, functional foods and nutritional supplements. The present invention also involves methods of making and methods of using such compositions.

SUMM . . . leachable substances are well known to those of skill in the art, and include, for example, sodium chloride and other **water**-soluble salts. The particle size of the leachable substance is roughly the size of the resulting pore. The relative amount and. . .

SUMM . . . can be used in situations where elimination, reduction, or prevention of microbes, including but not limited to bacteria, viruses, and **fungi** would be advantageous, for example, in cosmetic formulations, cleaning agent formulations, functional foods and as a preservative for foods.

SUMM . . . in a platinum crucible at 1350.degree. C. and homogenized for 24 hours. The molten glass is poured into distilled, deionized **water** to produce a glass frit. Alternatively, ribbons may be prepared by pouring the glass over moving rollers. The frit or. . .

SUMM . . . to yield a bioactive glass. For example, near-equilibrium drying may be drying under the conditions near the line for **water** as illustrated in conventional phase diagrams (or other liquids such as methanol, ethanol, acetone, liquid (CO.sub.2, benzene and so on).. . . results in an increase in relative humidity and pore diameter. Near-equilibrium drying temperature can also be varied, for example, with **water** drying. When using liquids other than **water**, such as those referred to above, one may obtain a faster drying or increase the pore size range of the. . .

SUMM . . . While current manufacturing processes generally control microbial contamination when the products are in sealed containers, after unsealing the package, bacteria, **fungi** and/or mold may contaminate the cosmetics. Often, various antibacterial agents are added to the cosmetics to minimize this process. These. . .

SUMM . . . of the present invention, bioactive glass may be included in cosmetic formulations to minimize microbial contamination, including contamination by bacteria, **fungi** and/or mold. The cosmetic compositions can include the aqueous extracts of bioactive glass and/or particles of bioactive glass.

SUMM . . . less than 2 microns is used. Preferred cosmetic preparations are especially creams, make-up compounds, lipsticks, lotions and salves

since the micro-biocidal effect of bioactive glass is further enhanced by the moisture contained in these preparations. However, bioactive glass can be added. . . .

SUMM [0062] Applicants have unexpectedly discovered that bioactive glass mixed with oil forms a cream. Likewise, bioactive glass mixed with **water** unexpectedly forms a cream. The cream resulting from mixing bioactive glass with either oil or **water** possesses a consistent homogenized texture particularly suitable for cosmetic formulations.

SUMM . . . being bound to any mechanism, it is believed that the bioactive glass has an affinity for oils as well as **water** and protenaceous matter, which is consistent with the unexpected effect observed by which bioactive glass and oil form a smooth, . . .

SUMM . . . Thus, bioactive glass and/or sol-gel-derived bioactive glass may be formulated in liquids, pastes, gels or creams that are anhydrous, but **water**-soluble (or **water** permeable). In this instance, the bioactive glass remains un-reacted while immersed in the anhydrous liquid, paste, gel or cream, but. . .

SUMM [0082] Common formulations of pigmentation products comprise **water**, glycerin, dihydroxyacetone, octyl palmitate, butylene glycol, cetyl alcohol, PPG-20 methyl glucose ether distearate, stearyl alcohol, acrylates/C10-30 alkyl acrylate crosspolymer, aloe. . .

SUMM . . . Nature's Gate, Neutrogena, No Ad, Off, Panama Jack, PreSun, Sea & Ski, Shade Sunblock, Sol Bar, Sunbrellas, Sun Splash, Ti-Screen, **Water** Babies, and products produced by high-end and generic manufacturers.

SUMM [0092] Common formulations of sun care products comprise octyl methoxycinnamate, octyl salicylate, homosalate, benzalkonium chloride, **water**, PVP/eicosene copolymer, dioctyl phosphate, triethanolamine, cetyl alcohol, retinyl palmitate, oat extract, tocopherol acetate, panthenol, dimethicone, trimethylsiloxysilicate, bisabolo, disodium EDTA, sorbitan. . .

DETD [0112] Common formulations of baby and hand wipe products comprise **water**, propylene glycol, PEG-75 lanolin, cocoamphodiacetate, polysorbate 20, methylparaben, 2-bromo-2-nitropane-1,3-diol, propylparaben, aloe vera gel and fragrance.

DETD [0121] Diaper rash products may also include one or more of the following: balsam, benzoic acid, **water**, bismuth subnitrate, borax, silicone, methylparaben, talc, trihydroxystearin, bisabolol, polyparaben and imidazolidinyl urea.

DETD [0131] Common formulations of mascara products comprise **water**, beeswax, cyclopentasilosane, glyceryl stearate, PPG-17 copolymer, carnuba wax, stearic acid, paraffin, butylene glycol, EDTA, polyethylene, nylon-12, polymethylmethacrylate, PVP copolymer, PVP. .

DETD . . . soybean lecithin, stearic acid, stearyl heptanoate, styrene/acrylates copolymer, talc, tallow glyceride, titanium dioxide, tocopheryl acetate, tristearin, ultramarines, various mineral, vitamin, **water**, zinc stearate and various vegetable and plant extracts.

DETD . . . retinyl palmitate, methoxypropylgluconamide, chitin extract, sodium hyaluronate, hydrolyzed glucosaminoglycans, lecithin, candelilla wax, soy amino acids, mimosa wax, pentahydrosqualene, sorbitan trioleate, **water**, propylene glycol, silica, phenoxyethanol, titanium butylparaben, isopropylparaben, isobutylparaben, BHA, lauryl lysine and methyldihydroiasmonate.

DETD [0147] Common formulations of concealer and foundation products comprise **water**, butylene glycol, dimethicone, isostearyl alcohol, synthetic wax, cyclomethicone, PEG-20 methyl glucose sesquistearate, sodium stearate, tribehenin, polymethyl methacrylate, salicylic acid, hydrolyzed. . .

DETD . . . hydrogenated tallow glutamate, sorbitan sesquioleate, sorbitan trioleate, titanium dioxide, tocopheryl acetate, triclosan, tridecyl trimellitate, various coloring agents, various plant extracts, **water**, aloe extract and allantoin.

DETD . . . acetate isobutyrate, T-butyl hydroquinone, tocopheryl acetate, trihydroxystearin, triisostearyl citrate, trilostearin, trimethylsiloxysilicate, urea, various natural and artificial flavorings, various vitamin agents, **water**, wheat germ oil, caprylic/capric triglyceride, ceresin, trifluoromethyl C1-4 alkyl dimethicone, arachidyl propionate, phenyl trimethicon and BHT.

DETD . . . wax, octadecene/ma copolymer, octyl methoxycinamate, octyl palmitate, oxybenzone, ozokerite, padimate, paraffin, petrolatum, phenol, polybutene, polyphenylmethylsiloxane 556, polyethylene, propylparaben, purified **water**, saccharin, salicylic acid, SD alcohol 36, stearyl alcohol, sunflower seed oil, talc, tridecyl stearate, tridecyl trimellitate, triisostearyl esters, various coloring.

DETD [0183] Common formulations of nail polish remover products comprise ethyl acetate, alcohol, **water**, propylene carbonate, dimethyl glutarate, dimethyl succinate, dimethyl adipate, gelatin, glycerin, diglycerol, fragrance, isopropanol, propyl acetate, benzophenone-1, castor oil and various.

DETD . . . chloride, sodium cocoate, sodium hydroxide, sodium polynaphthalene sulfonate, sodium tallowate, talc, titanium dioxide, trisodium hedta, various plant and mineral extracts, **water**, xanthan gum, zinc oxide, aluminum hydroxide, glyceryl stearate SE and PEG-12.

DETD [0202] Generally, facial cleansing, toning, or exfoliating products or makeup removal products comprise camphor, **water**, menthol, stearic acid, calcium hydroxide, ammonium hydroxide and an exfoliant such as alpha or beta hydroxy acid, retinoic acid, azelaic.

DETD [0203] Common formulations of facial cleansing, toning, exfoliating products and makeup removal products comprise **water**, glycerin, sodium laureth sulfate, cocamidopropyl betaine, tocopheryl acetate, panthenol, methyl lactate, carylates/steareth-20, methacrylate copolymer, xanthan gum, microcrystalline wax, sodium magnesium, . . .

DETD . . . lanolin oil, laureth-4, laureth-9, lauric acid, lauryl phosphate, lauryl polyglucose, magnesium aluminum silicate, menthol, methyl gluceth 20, methylchloroisothiazolinone, methyldibromo glutaronitrile, **methylisothiazolinone**, methylparaben, mineral oil, myristic acid, octyl hydroxystearate, olive oil, palmitic acid, paraffin, PEG-10 hydrogenated castor oil, PEG-10 soya sterol, PEG-100.

DETD [0212] Common formulations of facial moisturizing, anti-wrinkle, and eye care products and hand and body lotion products comprise **water**, glycerin, stearic acid, aloe gel, glycol stearate, soya sterol, lecithin, dimethicone, glyceryl stearate, cetyl alcohol, magnesium aluminum silicate, fragrance, carbomer, . . .

DETD . . . linseed oil, magnesium ascorbyl phosphate, magnesium sulfate, malic acid, menthol, menthyl anthranilate, menthyl lactate, methoxypropylgluconamide, methyl gluceth-20, methylcellulose, methylchloroisothiazolinone, methylisothiazol, **methylisothiazolinone**, mineral oil, mink oil, monoglyceride citrate, myristyl lactate, myristyl myristate, neopentyl glycol dicaprylate/dicaprate, nylon-12, octyl hydroxystearate, octyl methoxycinamate, PEG-8 beeswax, . . .

DETD . . . Base with Sol-gel-derived Bioactive Glass

#### INGREDIENTS

wt %

Mineral Oil (70ssu)	20.0
Polawax .RTM.	5.0
Glycerin	2.0
Deionized <b>Water</b>	65.4
Jaguar C-14S	0.5
Phenobact	1.0

Fragrance (High End Botanicals AFF #ACR2492019E)	0.1
Citric Acid monohydrate powder	2.0
Schott Glass. . . .	
DETD . . . . 3.0 . . . . 3.0 . . . . 3.0	
Volpo 10	0.8 0.8 0.8
Volpo 3	0.6 0.6 0.6
Jojoba Oil	10.0 10.0 10.0
Cyclomethicone D5	5.0 5.0 5.0
Part B	
Deionized Water	59.9 59.9 59.9
NaOH	0.1 0.1 0.1
Volpo 10	0.1 0.1 0.1
TiO.sub.2	7.0 7.0 7.0
Yellow Iron Oxide	0.8 0.8 0.8
Red Iron Oxide. . . .	
DETD . . . . Afiate, Aloe Vesta, Alpha Hydrox, BFI, Baza, Blis-to-Sol, Brite-Life, Carrington, Cruex, Desenex, Desert Essence, Dr. Scholl's, Earth Therapeutics, Fougera, Freeman, <b>Fungi Care</b> , <b>Fungiclear</b> , <b>FungiCure</b> , <b>Funginail</b> , <b>Fungi Nail</b> , Fungus Stop, Gold Bond, Health at Home, Johnson's, LA Cross, Lamisil, Lotrimin, Mavis, Micatin, Miconazole, Neutrogena, NP-27, Odor-Eaters, Orly,. . . .	
DETD . . . . alcohol 40, sodium bicarbonate, stearalkonium hectorite, stearamidoethyl diethylamine, stearic acid, stearyl alcohol, talc, thymol, triglyceryl diisostearate, wormwood oil, xanthan gum, <b>water</b> , salicylic acid, methyl salicylate, bentonite, camphor, benzethonium chloride, terbinafine hydrochloride, benzyl alcohol, cetyl alcohol, cetyl palmitate, sodium hydroxide, sorbitan monostearate,. . . .	
DETD . . . . steareth-2, steareth-21, stearic acid, stearyl alcohol, styrene/acrylates copolymer, sulfated castor oil, thymol, titanium dioxide, tocopheryl acetate, triethanolamine, various coloring agents, <b>water</b> , white petrolatum, white wax, zinc oxide, zinc pyrithione, paraffin, yellow wax, maltodextrin, and various fruit, vegetable, mineral and vitamin extracts.	
DETD . . . . polymyxin B sulfate, potassium sorate, pramoxine HCl, propylene glycol, silica, sodium benzoate, sodium lauryl sulfate, sodium matabisulfite, thymoli, tocopheryl acetate, <b>water</b> , white petrolatum and zinc phenol sulfenate.	
DETD . . . . liquid, and gel form and bath salt products comprise triclocarboin, soap, sodium tallowate, sodium pamitate, sodium cocoate, palm kernelate types, <b>water</b> , PEG-6, methyl ether, fragrance, glycerin, sorbitol, sodium chloride, tetra sodium etibronate, pentasodium pentetate, BHT and various coloring agents.	
DETD . . . . alcohol, lauryl sulfate, lecithin, lemon juice, linoleamide DEA, magnesium cocoate, magnesium laurate, magnesium stearate, methyl gluceth-10, methyl gluceth-20, methylcellulose, methylchloroisothiazolinone, <b>methylisothiazolinone</b> , methylparaben, mineral oil, oleate/cocoate, oleyl alcohol, oleyl lactate, palm acid, palmitic acid, paraffin, PEG 55 propylene glycol oleate, PEG 7. . . . dioxide, tocopheryl acetate, triclosan, sodium c14-16 olefin sulfonate, triethanolamine, trisodium EDTA, trisodium etidronate, trisodium HEDTA, ultramarine blue, sodium laureth sulfate, <b>water</b> , disodium laureth sulfosuccinate, cocamidopropyl betaine, sodium laureth-13 carboxylate, fragrance, glycerin, panthenol, aloe gel, ammonium chloride, DMDM hydantoin, PEG-150 distearate, glycol. . . .	
DETD [0260] Common formulations of shampoo and hair detangling products comprise <b>water</b> , ammonium laureth sulfate, ammonium lauryl sulfate, glycol distearate, dimethicone, cocamide MEA, cetyl alcohol, fragrance, polymethacrylamidopropyl, trimonium chloride, sodium citrate, DMDM. . . .	
DETD . . . . hydrolyzed wheat starch, hydrolyzed yeast, hydroxypropyl guar hydroxypropyltrimonium chloride, hydroxypropyl methylcellulose, hydroxypropyltrimonium hydrolyzed wheat protein, imidazolidinyl urea,	



inositol, iodopropyl butylcarbamate, **iodopropynyl butylcarbamate**, isobutane, isolaureth-6, isostearamidopropyl morpholine lactate, keratin amino acids, ketoconazole, lactamide MEA, lauramide DEA, lauramphoglycinate, laureth-10, laureth-23, laureth-4, laureth-6, lauryl alcohol, lecithin, magnesium citrate, magnesium laureth sulfate, measulfosuccinate, menthol, methenamine, methoxypropylgluconamide, methylchloroisothiazolinone, **methylisothiazolinone**, methylparaben, mica, octoxynol-40, octyl Dimethyl PABA, octyl hydroxystearate, octyl methoxycinamate, olealkonium chloride, palmitic acid, pantethine, panthenol, panthenyl ethyl ether, pantothenic. . .

DETD [0264] Common formulations of hair mousse, hair gel, and hair spray products comprise **water**, isobutane, polyquaternium-4, propane, propylene glycol, C9-11 pareth-8, DMDM hydantoin, fragrance, panthenol, disodium EDTA, panthenyl ethyl ether, pantethine, lauramine oxide, keratin. . .

DETD . . . hydrolyzed elastin, hydrolyzed soy protein, hydrolyzed wheat protein, hydrolyzed wheat starch, hydrophilic polyether polyurethane, hydroxyethyl cellulose, hydroxypropyl guar, hydroxypropyl methylcellulose, **iodopropynyl butylcarbamate**, isododecane, isopropyl alcohol, isosteareth-10, keratin protein, lactamide MEA, laneth-16, lauramide DEA, lauramide MEA, laureth-11, laureth-23, laureth-4, laureth-7, laureth-9, lecithin, linoleamidopropyl, linoleic acid, lysine, lysine hydroxypropyl trimonium chloride, methylchloroisothiazolinone, methylchloroisothiazolinone, methylchloroisothiazolinone, methylisothiazoline, **methylisothiazolinone**, methylparaben, mineral oil, myristoyl hydrolyzed collagen, niacinamide, SD alcohol 40, nonoxynol-10, octyl hydroxystearate, octyl salicylate, octylacrylamide/acrylates copolymer, octylacrylamide/acrylates/butylaminoethyl meth, octylmethoxycinnamate,. . .

DETD . . . Hair Shampoo with Bioactive Glass

INGREDIENTS	wt %
Standapol ES-2	30.0
Crosultaine C-50	10.0
Foamid C	5.0
Deionized <b>Water</b>	47.3
Jaguar C-14S	0.5
Phenobact	1.0
Fragrance (Wildberry AFF #24551)	0.2
Citric Acid monohydrate powder	3.0
Schott Glass Bioactive (<4.mu.. . .	

DETD . . . % C wt % D

Standapol ES-2	30.0	30.0	30.0	30.0
Consultaine C-50	10.0	10.0	10.0	10.0
Foamid C	5.0	5.0	5.0	5.0
Deionized <b>Water</b>	48.0	48.0	48.0	48.0
Phenobact	1.0	1.0	1.0	1.0
Citric Acid monohydrate powder	1.0	--	1.0	--
Schott Glass 45s5 (<4.mu.. . .	5.0	--		

DETD . . . % C wt % D

Steol CS-230	30.0	30.0	30.0	30.0
Crosultaine C-50	10.0	10.0	10.0	10.0
Foamid C	5.0	5.0	5.0	5.0
Deionized <b>Water</b>	49.0	48.0	47.0	46.0
Phenobact	1.0	1.0	1.0	1.0

Citric Acid monohydrate powder	--	1.0	2.0	3.0
Bioglass (<5.mu. ave. part. size)	5.0.			

DETD . . . tetrasodium EDTA, tribehenin, triclosan, triclosan, triethyl citrate, urea, various coloring agents, various mineral and vitamin extracts, vegetable oil, vegetable starches, **water**, xanthan gum, zinc oxide.

DETD [0284] Common formulations of aftershave and shaving lotion products comprise SD alcohol 40, **water**, glycerin, menthol, fragrance, benzophenone-1 and various coloring agents.

DETD [0291] Common formulations of shaving products cream gel, powder, or soap powder comprise **water**, triethanolamine, palmitic acid, stearic acid, isopentane, monoglycerides, sorbitol, PEG-90M, PVP, fragrance, isobutane, various coloring agents, and various floral, vitamin, and. . .

DETD [0298] Common formulations of depilatory, epilatory or hair bleaching products comprise **water**, mineral oil, calcium hydroxide, cetearyl alcohol, calcium thioglycolate, sodium thioglycolate, cetareth-20, various floral and herbal, and vitamin extracts, and various. . .

DETD [0305] Common formulations of toothpaste products comprise sodium fluoride, **water**, sorbitol, hydrated silica, zinc citrate trihydrate, sodium lauryl sulfate, SD alcohol 38-B, flavor, cellulose gum, sodium saccharin, and various coloring. . .

DETD . . . or other liquids which normally come in contact with the teeth. Such compositions can generally withstand significant agitation, rinsing with **water** and long term soaking in simulated saliva for five days. Moreover, many of the small particles do not require a. . .

DETD . . . of the bioactive glass to the teeth, these bioactive glass compositions may also be applied in a saline or distilled **water** based medium. These compositions may also be formulated into mouthwash, gel or they may be applied by a dentist as. . .

DETD . . . efficacy may also be incorporated in the oral compositions and are characterized by their ability to release fluoride ions in **water**. It is preferable to employ a **water**-soluble salt fluoride providing about 10 to 5,000 ppm of fluoride ion and preferably about 1000 to 1500 ppm of fluoride ion. Among these materials are **water**-soluble alkali metal salts, for example, sodium fluoride, potassium fluoride, sodium monofluorophosphate and sodium fluorosilicate. Sodium monofluorophosphate is a preferred fluoride-providing. . .

DETD [0329] Pigments may include non-toxic, **water** insoluble inorganic pigments such as titanium dioxide and chromium oxide greens, ultramarine blues and pinks and ferric oxides as well as **water** insoluble dye lakes prepared by extending calcium or aluminum salts of FD&C dyes on alumina such as FD&C Green #1. . .

DETD [0336] Common formulations of mouthwash and mouth rinse products comprise thymol, eucalyptol, methyl salicylate menthol, **water**, alcohol, benzoic acid, poloxamer 407, sodium benzoate, and caramel.

DETD . . . of the bioactive glass to the teeth, these bioactive glass compositions can also be applied in a saline or distilled **water** based medium.

DETD [0345] Eyedrop products may also include one of the following: boric acid, edetate disodium, **water**, sodium borate, polyvinyl alcohol, povidone, tetrahydrozoline hydrochloride, dextrose, disodium EDTA, potassium chloride, **water**, sodium bicarbonate, sodium chloride, sodium citrate, sodium phosphate, oxymetazoline HCl, hydroxypropyl methyl cellulose, pheniramine maleate, liquifilm, phenylephrine HCl, sodium acetate,. . .

DETD . . . sodium carbonate, poloxamine, sodium borate, isotonic saline, antimicrobial buffer system, sodium perborate, hydrogen peroxide, phosphonic acid, nitrogen, borate buffer system, **water**, EDTA, caramide, glycerin, and povidine.

DETD [0360] 3. A nail-hardening/protecting gel, containing gelled jojoba oil or glycerin and a Pemulen.RTM. polymer, or glycerin, **water**,

citric acid, Jaguar C-14S and phenobact.

DETD . . . agent is not hindered by the release of alkaline ions and there is no increase in the hardness of the **water** or calcification. Also, these novel cleaning agents do not corrode or damage the materials being cleaned, especially textile fabrics, as. . .

DETD [0472] The present invention also provides a cleaning agent containing bioactive glass which not only acts as a **biocide** against viruses and bacteria, but is also gentle on skin and materials, causes no allergic reactions and cleans hard to remove dirt such as set-in proteins. The present invention also provides non-toxic cleaning agents having **biocidal** and dirt removing properties to be used in conjunction with a solvent having at least one surface active agent.

DETD [0473] In one embodiment the cleaning agent is non-toxic and has **biocide** and dirt-removing features for joint usage with a dissolving agent containing at least a surface active agent and contains bioactive. . .

DETD [0489] Generally, laundry detergent, stain remover, and fabric softening products comprise cleaning agents (anionic and nonionic surfactants), enzymes, **water** softener, dispensing aid (propylene glycol), buffering agents, **water**, stabilizing agents, soil suspending agents, color-protecting agents, coloring agents and fragrance.

DETD . . . detergent, stain remover, and fabric softening products may also include one or more of the following: sodium hypochlorite, hydrogen peroxide, **water** softeners (aluminosilicates, sodium carbonate), various processing aids (sodium sulfate), various washer protection agents, various soil suspending agents, cationic surfactants and. . .

DETD [0497] Common formulations of dish-washing products comprise triclosan, **water**, ammonium laureth sulfate, lauryl polyglucose, sodium dodecylbenzenesulfonate, SD alcohol 3-A, sodium xylene sulfonate, quaternium-15, lauramide myristamide MEA, fragrance and various. . .

DETD . . . also may include one or more of the following: chlorine bleach, silicate salts, lauryl polyglucose, DMDM hydantoin, methylchloroisothiazolinone, calcium carbonate, **methylisothiazolinone**, anionic surfactants, sodium carbonate, trisodium HEDTA, sodium metabisulfite, and various quality control agents.

DETD [0518] Common formulations of oven cleaning products comprise **water**, surfactants, grease cutting agents, sodium hydroxide, **water** conditioning agents, fragrance, and various coloring agents.

DETD . . . and shower cleaning products also may include one or more of the following: dipropylene glycol butyl ether, citric acid, perfume, **water**, calcium carbonate, sodium hypochlorite, dimethyl ethylbenzyl ammonium chlorides, glycol ether, surfactants, soil suspending agents, cleaning agents, various processing agents, various. . .

DETD . . . Silica supplement and silica supplemented products may also include one or more of the following: rice powder, silica, gelatin and **water**.

DETD . . . to or included in the following household products: dust filters, wall paint/wallpaper, toilet seat covers, mold remover, ceramic/bathroom tile laminates, **water** filters, mattress fillers, cleaning agents for solariums and sun beds, toilet brushes, pet litter (such as the products marketed under. . .

DETD [0592] Bioactive glass may also be added to or included in the following products: **fungicide**/pesticide for agriculture, marine antifoulant, coating for glass and cleaners for industrial food and beverage containers, concrete, ceramics, and tile, to. . .

DETD [0687] 95. The composition of embodiment 27 comprising mineral oil, Polawax.RTM., glycerin, deionized **water**, jaguar C-14S, phenobact, fragrance, citric acid monohydrate powder, and sol-gel-derived bioactive glass.

DETD [0689] 97. The composition of embodiment 27, comprising crodafos CES,

volpo 10, volpo 3, jojoba oil, cyclomethicone D5, deionized **water**, NaOH, TiO<sub>2</sub>, red iron oxide, 50/50 Black/brown iron oxide blend, propylene glycol, jaguar 13S, germaben II, and 45s bioactive glass.

DETD [0690] 98. The composition of embodiment 27, comprising crodafos CES, volpo 10, volpo 3, jojoba oil, cyclomethicone D5, deionized **water**, NaOH, TiO<sub>2</sub>, red iron oxide, 50/50 Black/brown iron oxide blend, propylene glycol, jaguar 13S, germaben II, and 58s bioactive glass.

DETD [0696] 104. The method of embodiment 34 to make a composition comprising mineral oil, Polawax.RTM., glycerin, deionized **water**, jaguar C-14S, phenobact, fragrance, citric acid monohydrate powder, and sol-gel-derived bioactive glass.

DETD . . . method of embodiment 34 to make a composition comprising crodafos CES, volpo 10, volpo 3, jojoba oil, cyclomethicone D5, deionized **water**, NaOH, TiO<sub>2</sub>, red iron oxide, 50/50 Black/brown iron oxide blend, propylene glycol, jaguar 13S, germaben II, and 45s bioactive glass.

DETD . . . method of embodiment 34 to make a composition comprising crodafos CES, volpo 10, volpo 3, jojoba oil, cyclomethicone D5, deionized **water**, NaOH, TiO<sub>2</sub>, red iron oxide, 50/50 Black/brown iron oxide blend, propylene glycol, jaguar 13S, germaben II, and 58s bioactive glass.

DETD [0704] 112. The composition of embodiment 86 comprising standopol ES, crosultaine C-50, foamid C, deionized **water**, jaguar C-14S, phenobact, fragrance, citric acid monhydrate powder, and bioactive glass.

DETD [0706] 114. The composition of embodiment 86 comprising standopol ES, crosultaine C-50, foamid C, deionized **water**, phenobact, citric acid monhydrate powder, and bioactive glass.

DETD [0710] 118. The composition of embodiment 86 comprising steol CS-230, crosultaine C-50, foamid C, deionized **water**, phenobact, citric acid monhydrate powder, and bioactive glass.

DETD [0711] 119. The composition of embodiment 86 comprising steol CS-230, crosultaine C-50, foamid C, deionized **water**, phenobact, and bioactive glass.

CLM What is claimed is:

95. The composition of claim 27 comprising mineral oil, Polawax.RTM., glycerin, deionized **water**, jaguar C-14S, phenobact, fragrance, citric acid monohydrate powder, and sol-gel-derived bioactive glass.

97. The composition of claim 27, comprising crodafos CES, volpo 10, volpo 3, jojoba oil, cyclomethicone D5, deionized **water**, NaOH, TiO<sub>2</sub>.sub.2, red iron oxide, 50/50 Black/brown iron oxide blend, propylene glycol, jaguar 13S, germaben II, and 45s bioactive glass.

98. The composition of claim 27, comprising crodafos CES, volpo 10, volpo 3, jojoba oil, cyclomethicone D5, deionized **water**, NaOH, TiO<sub>2</sub>.sub.2, red iron oxide, 50/50 Black/brown iron oxide blend, propylene glycol, jaguar 13S, germaben II, and 58s bioactive glass.

104. The method of claim 34 to make a composition comprising mineral oil, Polawax.RTM., glycerin, deionized **water**, jaguar C-14S, phenobact, fragrance, citric acid monohydrate powder, and sol-gel-derived bioactive glass.

. . . method of claim 34 to make a composition comprising crodafos CES, volpo 10, volpo 3, jojoba oil, cyclomethicone D5, deionized **water**, NaOH, TiO<sub>2</sub>, red iron oxide, 50/50 Black/brown iron oxide blend, propylene glycol, jaguar 13S, germaben II, and 45s bioactive glass.

. . . method of claim 34 to make a composition comprising crodafos CES, volpo 10, volpo 3, jojoba oil, cyclomethicone D5, deionized

**water**, NaOH, TiO<sub>2</sub>, red iron oxide, 50/50 Black/brown iron oxide blend, propylene glycol, jaguar 13S, germaben II, and 58s bioactive glass.

112. The composition of claim 86 comprising standopol ES, crosultaine C-50, foamid C, deionized **water**, jaguar C-14S, phenobact, fragrance, citric acid monhydrate powder, and bioactive glass.

114. The composition of claim 86 comprising standopol ES, crosultaine C-50, foamid C, deionized **water**, phenobact, citric acid monhydrate powder, and bioactive glass.

118. The composition of claim 86 comprising steol CS-230, crosultaine C-50, foamid C, deionized **water**, phenobact, citric acid monhydrate powder, and bioactive glass.

119. The composition of claim 86 comprising steol CS-230, crosultaine C-50, foamid C, deionized **water**, phenobact, and bioactive glass.

L17 ANSWER 7 OF 25 USPATFULL

ACCESSION NUMBER: 2002:48562 USPATFULL  
TITLE: Antimicrobial compositions  
INVENTOR(S): Johansen, Charlotte, Holte, DENMARK  
Aaslyng, Dorrit, Vaerloose, DENMARK  
PATENT ASSIGNEE(S): Novozymes A/S, Bagsvaerd, DENMARK, DK-2880 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002028754	A1	20020307
APPLICATION INFO.:	US 2001-899689	A1	20010705 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DK 2000-1121	20000721
	US 2000-220538P	20000725 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	NOVOZYMES NORTH AMERICA, INC., C/O NOVO NORDISK OF NORTH AMERICA, INC., 405 LEXINGTON AVENUE, SUITE 6400, NEW YORK, NY, 10174	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1105	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides an antimicrobial composition comprising an enzymatic component and one or more non-enzymatic **biocides**; a method for killing or inhibiting microbial cells comprising a treatment with the antimicrobial composition; and a detergent composition comprising. . .

SUMM [0002] The invention relates to compositions with antimicrobial activity comprising an enzymatic component and one or more non-enzymatic **biocides**.

SUMM [0003] Several enzymatic antimicrobial compositions have been disclosed, e.g. WO 99/08531, WO 99/23887 and WO 00/27204. Likewise several **biocidal** compounds are known in the art.

SUMM [0005] We have found that the antimicrobial activity of a non-enzymatic **biocidal** compound is improved when it is combined with an enzymatic component.

SUMM . . . invention there is provided, in a first aspect, an antimicrobial composition comprising an enzymatic component and one or more non-enzymatic **biocides**.

SUMM . . . for killing or inhibiting microbial cells comprising treating said microbial cells with an enzymatic component and one or more non-enzymatic **biocides**.

SUMM [0008] In a third aspect, the present invention provides a detergent composition comprising an enzymatic component, one or more non-enzymatic **biocides** and a surfactant.

SUMM [0009] The present invention is useful at any locus subject to contamination by bacteria, **fungi**, yeast or algae; for the preservation of food, beverages, cosmetics, deodorants, contact lens products, food ingredients or enzyme compositions; as. . . cleaning compositions; and for disinfection of hard surfaces, in the pulp and paper industry, in the oil industry, or for **water** treatment.

DETD [0010] In the context of the present invention the terms "antimicrobial" and "**biocidal**" are intended to mean that there is a bactericidal and/or a bacteriostatic and/or **fungicidal** and/or **fungistatic** effect and/or a virucidal effect, wherein

DETD [0013] The term "**fungicidal**" is to be understood as capable of killing fungal cells.

DETD [0014] The term "**fungistatic**" is to be understood as capable of inhibiting fungal growth, i.e. inhibiting growing fungal cells.

DETD . . . and the like. The hard surface can also be a process equipment, e.g., a cooling tower, an osmotic membrane, a **water** treatment plant, a dairy, a food processing plant, a chemical plant, a pharmaceutical process plant, a pulp and paper plant. . .

DETD [0019] Non-enzymatic **biocides**

DETD [0020] In the context of the present invention the term "**biocide**" includes disinfectants and preservatives, such as bactericides, **fungicides**, and algaecides.

DETD [0023] The **biocides** of the composition of the invention may consist of the disinfectants and preservatives defined above.

DETD [0024] In an embodiment, the **biocide** may be a polypeptide having from 2 to 50 amino acid residues, preferably having from 2 to 40 amino acid. . .

DETD [0025] In another embodiment, the **biocide** may not have any enzymatic activity as defined by any enzyme class, such as an enzyme class selected from the. . . 3. . . , EC 4. . . , EC 5. . . , and EC 6. . . The **biocide** may not be a polypeptide having more than 50 amino acid residues; preferably the **biocide** may not be a polypeptide having more than 30 amino acid residues; more preferably the **biocide** may not be a polypeptide having more than 10 amino acid residues; and most preferably the **biocide** is not a polypeptide.

DETD [0026] In another embodiment, the **biocide** is not a substrate for the enzyme(s) included in the composition of the invention. In another embodiment, the **biocide** is not capable of reacting with the enzyme(s) included in the composition of the invention. In yet another embodiment, the **biocide** is not a substrate of, or capable of reacting with, an oxidoreductase. In yet another embodiment, the **biocide** is not a substrate of, or capable of reacting with, a hydrolase as defined in the enzyme class EC 3. . . .

DETD [0027] The **biocides** may also be selected from the group consisting of quaternary ammonium compounds, aldehydes, triclosan, organometals, biguanides, phenolics, halogenated organic compounds, . . .

DETD [0028] Preferred **biocides** are those selected from the group consisting of Benzoic acid (CAS 65-85-0), Sodium benzoate (CAS 532-32-1), Benzylalcohol (CAS 100-51-6), Bronopol. . . di-methyl hydrantoin (CAS 6440-58-0), Ethyl alcohol (CAS 64-17-5), Formaldehyde (CAS 50-00-0), Glutaraldehyde, Imidazolidinyl urea (CAS 39236-46-9) Methylchloroisothiazolinone (CAS 261172-55-4), Benzisothiazolinone, **Methylisothiazolinone** (CAS 2682-20-4), methylparaben (CAS 99-76-3), ethylparabens (CAS 120-47-8), propylparabens (CA 94-13-3), Butylparabens (CAS 94-26-8), Isopropylparabens (CAS 4191-73-5), Isobutylparaben (CAS 4247-02-3), . . .

DETD . . . laccase enzymes and/or laccase related enzymes are enzymes of microbial origin. The enzymes may be derived from plants, bacteria or **fungi** (including filamentous **fungi** and yeasts).

DETD [0047] Suitable examples from **fungi** include a laccase derivable from a strain of *Aspergillus*, *Neurospora*, e.g., *N. crassa*, *Podospora*, *Botrytis*, *Collybia*, *Fomes*, *Lentinus*, *Pleurotus*, *Trametes*, . . .

DETD . . . employed in the composition of the invention is producible by plants (e.g. horseradish or soybean peroxidase) or microorganisms such as **fungi** or bacteria.

DETD [0060] Some preferred **fungi** include strains belonging to the subdivision Deuteromycotina, class Hyphomycetes, e.g., *Fusarium*, *Humicola*, *Trichoderma*, *Myrothecium*, *Verticillium*, *Arthromyces*, *Caldariomyces*, *Ulocladium*, *Embellisia*, *Cladosporium*. . .

DETD [0062] Other preferred **fungi** include strains belonging to the subdivision Basidiomycotina, class Basidiomycetes, e.g., *Coprinus*, *Phanerochaete*, *Coriolus* or *Trametes*, in particular *Coprinus cinereus* f..

DETD [0063] Further preferred **fungi** include strains belonging to the subdivision Zygomycotina, class Mycoraceae, e.g., *Rhizopus* or *Mucor*, in particular *Mucor hiemalis*.

DETD [0079] Haloperoxidases have been isolated from various organisms: mammals, marine animals, plants, algae, a lichen, **fungi** and bacteria. It is generally accepted that haloperoxidases are the enzymes responsible for the formation of halogenated compounds in nature, . . .

DETD [0080] Haloperoxidases have been isolated from many different **fungi**, in particular from the fungus group dematiaceous hyphomycetes, such as *Caldariomyces*, e.g., *C. fumago*, *Altemaria*, *Curvularia*, e.g., *C. verruculosa* and. . .

DETD [0141] The present invention provides an antimicrobial composition, comprising an enzymatic component and one or more non-enzymatic **biocides**.

DETD [0142] The enzymatic component and the non-enzymatic **biocides** of the composition may be selected so that a synergistic antimicrobial effect is obtained.

DETD [0143] The enzymatic component and the non-enzymatic **biocides** of the composition may be selected so that the number of living cells of *E. coli* (DSM1576), when incubated 10. . . in an aqueous solution containing 50% w/w (preferably 25% w/w, more preferably 10% w/w, most preferably 5% w/w) of the **biocide** and 0.5 ppm (preferably 0.1 ppm) of the enzymatic 10 component, are reduced at least 5% (preferably at least 10%) more than compared to what is obtained by adding the results of separate incubations with the **biocides** and the enzymatic component alone, i.e. a simple additive effect.

DETD [0144] The enzymatic component and the non-enzymatic **biocides** of the composition may also be selected so that the outgrowth of *E. coli* (DSM1576) at 25.degree. C. in a microbial growth substrate containing 500 ppm (preferably 250 ppm, more preferably 100 ppm, most preferably 50 ppm) of the **biocide** and 0.5 ppm (preferably 0.1 ppm) of the enzymatic component, are inhibited at least 5% (preferably at least 10%) longer time than compared to what is obtained by adding the results of separate incubations with the **biocides** and the enzymatic component alone, i.e. a simple additive effect.

DETD . . . invention may be a concentrated product or a ready-to-use product. 30 In use, the concentrated product is typically diluted with **water** to provide a medium having an effective antimicrobial activity, applied to the object to be disinfected or preserved, and allowed. . .

DETD [0154] The microbial cells may be treated with the enzymatic component and the non-enzymatic **biocides** simultaneously, in sequential treatments or even in discrete treatments separated by other process steps.

DETD [0156] The invention also encompasses various uses of a composition comprising an enzymatic component and one or more non-enzymatic

**biocides**. Said composition is typically useful at any locus subject to contamination by bacteria, **fungi**, yeast or algae. Typically, loci are in aqueous systems such as cooling **water** systems, laundry rinse **water**, oil systems such as cutting oils, lubricants, oil fields and the like, where microorganisms need to be killed or where. . . .

DETD . . . . contacted with the composition of the invention are surfaces of process equipment used e.g. dairies, chemical or pharmaceutical process plants, **water** sanitation systems, oil processing plants, paper pulp processing plants, **water** treatment plants, and cooling towers. The composition of the invention should be used in an amount, which is effective for. . . .

DETD [0162] It may also be used as a preservation agent or a disinfection agent in **water** based paints.

DETD [0163] The composition of the present invention is also useful for microbial control of **water** lines, and for disinfection of **water**, in particular for disinfection of industrial **water**.

DETD . . . . a powder, a granule, a paste or a liquid. A liquid detergent may be aqueous, typically containing up to 70% **water** and 0-30% organic solvent, or non-aqueous.

DETD . . . . and diluted in the buffers, respectively to a concentration of approximately  $10^{6.6}$  CFU/ml. The cell suspensions are incubated with the enzyme/**biocide** system for 15 min at 40.degree. C.

DETD [0209] Antibacterial activity in detergent of haloperoxidase and **biocide**

DETD . . . . activity is evaluated in the detergent at pH 9.9, 9, and 8 where pH is adjusted. Antimicrobial activity of the enzyme/**biocide** system is determined using KBr (2 and 4 mM) as halide, (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> (0 and 2 mM) as enhancing agent, and. . . .

DETD . . . . grown over night in Tryptone Soy Broth, this strain is not found to be sensitive to the detergent when no enzyme/**biocide** system is present. Cells are suspended in NOPA detergent (6 g/L) to the cell concentration of approximately  $10^{7.7}$ - $10^{8.8}$  CFU/ml, followed by addition of the enzyme/**biocide** system. After incubation at 35.degree. C. for 12 min, the number of living microorganisms was determined by use of a. . . .

CLM What is claimed is:

1. An antimicrobial composition comprising an enzymatic component and one or more non-enzymatic **biocides**.

7. The composition of claim 1, wherein the non-enzymatic **biocides** are capable of either: (a) reducing the number of living cells of Escherichia coli (DSM 1576) to 1/100 after 10. . . .

8. The composition of claim 1, wherein the non-enzymatic **biocides** are selected from the group consisting of Benzoic acid, Sodium benzoate, benzylalcohol, Bronopol, Chlorhexidine, Chlorhexidine digluconate, Chlorhexidine diacetate, chlorhexidine di-hydrochloride, Chloroxylenol, Dehydroacetic acid, Sodium dehydroacetate, Dichlorobenzyl alcohol, Dimethylol di-methyl hydrantoin, Ethyl alcohol, Formaldehyde, Glutaraldehyde, Imidazolidinyl urea, Methylchloroisothiazolinone, Benzisothiazolinone, **Methylisothiazolinone**, methylparaben, ethylparabens, propylparabens, Butylparabens, Isopropylparabens, Isobutylparabens, Benzylparabens, Phenethyl alcohol, Phenoxyethanol, Quaternium-15, Sorbic acid, Potassium sorbate, Dimethyl hydroxymethyl pyrazole, Iodopropyl vinyl butylcarbamate,. . . .

12. The method of claim 11, wherein the hard surface is a member of a cooling tower, a **water** treatment plant, a dairy, a food processing plant, a chemical or pharmaceutical process plant.

13. The method of claim 11, wherein the hard surface is a surface of **water** sanitation equipment.

17. A detergent composition comprising an enzymatic component, one or



more non-enzymatic **biocides**, and a surfactant.

IT 50-00-0, Formaldehyde, biological studies 52-51-7, Bronopol 54-64-8  
55-56-1, Chlorhexidine 56-95-1, Chlorhexidine diacetate 57-15-8,  
Chlorobutanol 60-12-8, Phenethyl alcohol 62-38-4, Phenylmercuric  
acetate 64-17-5, Ethyl alcohol, biological studies 65-85-0, Benzoic  
acid, biological studies 69-72-7, Salicylic acid, biological studies  
79-07-2, Chloroacetamide 90-43-7, [1,1'-Biphenyl]-2-ol 94-13-3,  
Propylparaben 94-18-8, Benzylparaben 94-26-8, Butylparaben  
100-51-6, Benzyl alcohol, biological studies 101-20-2 110-44-1,  
Sorbic acid 111-30-8, Glutaraldehyde 121-54-0, Benzethonium chloride  
122-99-6, Phenoxyethanol 127-82-2, Zinc phenolsulfonate 141-94-6,  
Hexetidine 520-45-6, Dehydroacetic acid 532-32-1, Sodium benzoate  
828-00-2, Dimethoxane 1321-23-9, Chloroxylenol 1330-43-4, Sodium  
borate 2682-20-4, Methylisothiazolinone 3380-34-5, Triclosan  
3697-42-5, Chlorhexidine dihydrochloride 4080-31-3, Quaternium 15  
4191-73-5, Isopropylparaben 4247-02-3, Isobutylparaben 4418-26-2,  
Sodium dehydroacetate 6440-58-0 7488-56-4, Selenium disulfide  
7681-55-2, Sodium iodate 10043-35-3, Boric acid, biological studies  
12041-76-8, Dichlorobenzyl alcohol 13463-41-7, Zinc pyrithione  
18472-51-0, Chlorhexidine digluconate 24634-61-5, Potassium sorbate  
30007-47-7, 5-Bromo-5-nitro-1,3-dioxane 31512-74-0, Polyquaternium 42  
35691-65-7 39236-46-9, Imidazolidinyl urea 55406-53-6  
68890-66-4, Piroctone olamine 70161-44-3, Sodium hydroxymethylglycinate  
88841-33-2 133029-32-0, Polyaminopropyl biguanide 214542-29-7,  
Dimethyl hydroxymethyl pyrazole  
(non-enzymic biocides; antimicrobial compn. contg. enzymic biocide)

L17 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
ACCESSION NUMBER: 2002:598834 CAPLUS  
DOCUMENT NUMBER: 138:132343  
TITLE: The sensitizing potential of various **biocides**  
in the guinea pig maximization test  
AUTHOR(S): Zissu, Daniele  
CORPORATE SOURCE: Institut National de Recherche et de Securite,  
Vandoeuvre, Fr.  
SOURCE: Contact Dermatitis (2002), 46(4), 224-227  
CODEN: CODEDG; ISSN: 0105-1873  
PUBLISHER: Blackwell Munksgaard  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI The sensitizing potential of various **biocides** in the guinea pig  
maximization test

AB **Biocides** are chems. used as preservatives added to most  
cosmetics and toiletries and to industrial **water**-based products  
such as cutting fluids, paints and glues. There are numerous  
**biocide** formulations used in **water**-based metalworking  
fluids. All these products, characterized by a low mol. wt., can react  
with endogenous proteins and may induce allergic contact dermatitis.  
Thus, numerous reports on occupational allergic contact dermatitis have  
been published. The purpose of this exptl. study was to compare the  
sensitizing potential of the various classes of **biocides** used in  
metalworking fluids by means of the maximization test of Magnusson &  
Kligman. The results show that, from the 9 samples tested, 7  
**biocides** induced sensitization varying in grade from moderate to  
strong, while 2 benzisothiazoline-based samples did not induce allergic  
contact dermatitis.

ST **biocide** allergic contact dermatitis

IT Dermatitis

(allergic, contact; sensitizing potential of various **biocides**  
in guinea pig maximization test)

IT **Biocides**

(sensitizing potential of various **biocides** in guinea pig maximization test)

IT 2634-33-5, 1,2-Benzisothiazol-3(2H)-one **2682-20-4** 4299-07-4  
5625-90-1 7747-35-5 26172-55-4 52299-20-4, 2-Hydroxymethylamino-2-methylpropanol **55406-53-6** 107391-79-7  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(sensitizing potential of various **biocides** in guinea pig maximization test)

L17 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:434599 CAPLUS  
DOCUMENT NUMBER: 137:15013  
TITLE: Quantitative determination of **biocides** and solvents in cutting fluids with MEKC  
AUTHOR(S): Schubert, B. A.; Maurer, W.; Dengel, H. S.; Hohaus, E.; Riepe, W.  
CORPORATE SOURCE: Universitat-GH Siegen, Fachbereich 8, Analytische Chemie II, Siegen, Germany  
SOURCE: Gefahrstoffe - Reinhaltung der Luft (2002), 62(4), 155-158  
CODEN: GRLUFZ; ISSN: 0949-8036  
PUBLISHER: Springer-VDI-Verlag GmbH & Co. KG  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Quantitative determination of **biocides** and solvents in cutting fluids with MEKC  
AB The quant. detn. of **biocides** and solvents in water -miscible cutting fluids with micellar electrokinetic chromatog. is illustrated. In spite of the complex matrix sample prepn. is not necessary. This method is suitable for routine anal. because of short migration times, high efficiency and low costs.  
ST **biocide** solvent detn cutting fluid MEKC chromatog  
IT **Biocides**  
Micellar electrokinetic chromatography  
Solvents  
(**biocide** and solvent detn. in cutting fluids with MEKC)  
IT Lubricating oils  
(cutting oils; **biocide** and solvent detn. in cutting fluids with MEKC)  
IT 59-50-7, p-Chloro-m-cresol 108-95-2, Phenol, analysis 122-99-6, 2-Phenoxyethanol 770-35-4, 1-Phenoxy-2-propanol 2634-33-5, 1,2-Benzisothiazol-3(2H)-one **2682-20-4**, 2-Methyl-3-isothiazolone 6180-61-6, 3-Phenoxy-1-propanol 26172-55-4, 5-Chloro-2-methyl-3-isothiazolone 26530-20-1 **55406-53-6**, 3-Iodo-2-propynyl butylcarbamate  
RL: ANT (Analyte); ANST (Analytical study)  
(**biocide** and solvent detn. in cutting fluids with MEKC)

L17 ANSWER 10 OF 25 USPATFULL

ACCESSION NUMBER: 2001:234982 USPATFULL  
TITLE: Opaque skin sanitizing composition  
INVENTOR(S): Fendler, Eleanor J., Hudson, OH, United States  
Dunkerton, Lois V., Maumee, OH, United States  
Zirnis, Aija, Solon, OH, United States  
PATENT ASSIGNEE(S): GOJO Industries, Inc., Akron, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6333039	B1	20011225
APPLICATION INFO.:	US 1998-160980		19980925 (9)
DOCUMENT TYPE:	Utility		

FILE SEGMENT: GRANTED  
PRIMARY EXAMINER: Celsa, Bennett  
LEGAL REPRESENTATIVE: Reese Taylor  
NUMBER OF CLAIMS: 14  
EXEMPLARY CLAIM: 1  
LINE COUNT: 547

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . at least one moisturizing agent having opacifying properties for both making the sanitizing composition uniformly opaque when mixed and reducing **water** loss from the skin. The composition also includes an effective amount of a polymeric thickener for providing a viscosity of from about 1000 to about 65,000 cps and **water**.

SUMM . . . a lower alkanol as the active antimicrobial ingredient, a moisturizing agent that is also an opacifier, a thickening agent, and **water**.

SUMM . . . defatting nature of alcohol to the skin requires that moisturizing agents or other skin conditioning agents be used to reduce **water** loss from the skin. Thus, moisturizers are sometimes used to provide skin conditioning benefits and improve mildness to the skin.. . . the moisturizers which essentially impart a smooth and soft feeling to the skin surface, but may or may not reduce **water** loss. Emollients also can refat the skin to reverse the defatting nature of alcohol.

SUMM At present, there are essentially two, and possibly three, ways of reducing **water** loss from the skin. One way is to deposit on the skin surface an occlusive layer which reduces the rate. . . .

SUMM The second way is to add non-occlusive hygroscopic substances to the skin which will retain **water** and make this **water** available to the skin to alter its physical properties and produce a cosmetically desirable effect. Non-occlusive moisturizers may also function. . . .

SUMM . . . need exists for an alcohol-based sanitizing composition which includes at least one moisturizing agent capable of not only reducing the **water** loss of the skin but also-serving as an opacifier for the composition which will effectively make the composition opaque such. . . .

SUMM . . . least one moisturizing agent having opacifying properties for both making the sanitizing composition uniformly opaque and reducing the rate of **water** loss from the skin; an effective amount of a polymeric thickener for providing a viscosity to the composition of from about 1000 to about 65,000 cps; and **water**.

SUMM . . . percent of at least one moisturizing agent having opacifying properties for both making the sanitizing composition uniformly opaque and reducing **water** loss from the skin; from about 0.1 to about 10 weight percent of at least a second moisturizing agent not having said opacifying properties; from about 0.05 to about 2 weight percent of a thickener; and the balance, **water**.

DETD . . . agent which also acts as an opacifying agent. The sanitizing composition has been particularly formulated with a polymeric thickener and **water** for preferably topical application to skin, and more particularly, to the hands.

DETD An alcohol is preferably used in the skin sanitizing composition for its antimicrobial properties. It kills gram-positive and gram-negative bacteria, **fungi**, and many viruses. The potent activity of alcohol against microorganisms is believed due to its denaturation of proteins and enzymes. . . .

DETD . . . effective amounts suitable for making the resultant sanitizing composition uniformly opaque upon proper mixing and to reduce the rate of **water** loss from the skin upon application of the sanitizing composition. Typically, from about 0.1 weight percent to about 5 weight. . . .

DETD . . . be used in the present invention. Preferably, these moisturizers are, like the opacifying moisturizers, typically non-occlusive hygroscopic substances which retain **water** and

make this **water** available to the skin. Some of these non-opacifying, non-occlusive moisturizers may be found naturally in the skin while others are not. Examples of such moisturizers include glycerin, **water**-soluble such as sorbitol, hydrolyzed proteins, urea, hydrolyzed starch, hydroxy acids such as lactic acid and fruit acids and salt derivatives. . . .

DETD . . . of optional antimicrobial agents described hereinabove, used in minor amounts. Other examples of preservatives include, but are not limited to, **iodopropynyl butylcarbamate**, **imidazolidinyl urea**, **methylchloroisothiazolinone** and **methylisothiazolinone**. These preservatives, as well as the preferred examples of antimicrobial agents, including triclosan, chloroxylenol, and chlorhexidene gluconate, may often be. . . .

DETD It will be appreciated that the remaining percentage or balance of the composition is **water**. **Water** acts as a vehicle to ensure even distribution of the composition to the skin. Notably, no additional ingredients are added. . . .

DETD In a preferred embodiment, the skin sanitizing composition is prepared by first dispersing the polymeric thickening agent in **water** with strong agitation for at least about 45 minutes. Next, alcohol is added to the composite mix and a preservative,. . . .

DETD . . . by first dispersing, by way of sprinkling, approximately 4 grams of the thickener, Ultrez-10, into about 329 grams of process **water** with rapid agitation. The polymer was allowed to hydrate with agitation at ambient temperature for about 40 minutes. Approximately 645. . . .

DETD . . . moisture content after successive applications or treatments of the composition to a particular area of skin. The corneometer measures the **water** content using a capacitance method. Standard methods were used for the measurements. For a more complete and detailed discussion and. . . .

DETD . . . the skin sanitizing compositions of the present invention are highly effective in providing antimicrobial activity to the skin, while reducing **water** loss from the skin. The opaque skin sanitizing compositions also enable the user to employ the compositions with a more. . . .

CLM What is claimed is:

. . . percent of at least one moisturizing agent having opacifying properties for both making the sanitizing compositions uniformly opaque and reducing **water** loss from the skin, said opacifying moisturizer selected from the group consisting of polyethylene copolymers, polypropylene copolymers, and sodium styrene-based. . . . second moisturizing agent not having said opacifying properties; from about 0.05 to about 2 weight percent of a thickener; and **water**

. . . The skin sanitizing composition according to claim 1, wherein said second moisturizer is selected from the group consisting of glycerin, **water**-soluble polyols, hydrolyzed proteins, urea, hydrolyzed starch, hydroxy acids, salts of hydroxy acids, pyrrolidone carboxylic acid, aloe vera gel, cucumber juice,. . . .

L17 ANSWER 11 OF 25 USPATFULL

ACCESSION NUMBER: 2001:59397 USPATFULL

TITLE: Controlled release compositions

INVENTOR(S): Ghosh, Tirthankar, Orelan, PA, United States  
Nungesser, Edwin H., Horsham, PA, United States

PATENT ASSIGNEE(S): Rohm and Haas Company, Philadelphia, PA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6221374	B1	20010424
APPLICATION INFO.:	US 1998-73282		19980506 (9)

	NUMBER	DATE
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PRIORITY INFORMATION:	US 1997-47966P	19970528 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Levy, Neil S.	
LEGAL REPRESENTATIVE:	Cairns, S. Matthew, Crimaldi, Kenneth	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
LINE COUNT:	667	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM The present invention is further directed to a method of eliminating or inhibiting the growth of **fungi**, plants and insects comprising introducing into or onto the locus to be protected an effective amount of the composition described. . . .

SUMM . . . growth of or controlling the growth of microorganisms at a locus. The term "microorganism" includes, but is not limited to, **fungi**, bacteria, and algae.

SUMM "Agricultural pesticides" include agricultural **fungicides**, herbicides and insecticides. "Agricultural **fungicide**" refers to a compound capable of inhibiting the growth of or controlling the growth of **fungi** in an agricultural application, such as treatment of plants and soil; "herbicide" refers to a compound capable of inhibiting the. . . .

SUMM Suitable agricultural **fungicides** of the present invention include, but are not limited to: dithiocarbamate and derivatives such as ferbam, ziram, maneb, mancozeb, zineb,. . . thioquinox, benomyl, thiabendazole, vinolozolin, iprodione, procymidone, triadimenol, triadimefon, bitertanol, fluoroimide, triarimol, cycloheximide, ethirimol, dodemorph, dimethomorph, thifluzamide, and, quinomethionate; miscellaneous halogenated **fungicides** such as: chloranil, dichlone, chloroneb, tricamba, dichloran, and polychloronitrobenzenes; **fungicidal** antibiotics such as: griseofulvin, kasugamycin and streptomycin; miscellaneous **fungicides** such as: diphenyl sulfone, dodine, methoxyl, 1-thiocyano-2,4-dinitrobenzene, 1-phenylthiosemicarbazide, thiophanate-methyl, and cymoxanil; as well as acylalanines such as, furalaxyl, cyprofuram, ofurace,. . . .

SUMM The compositions of the invention may further comprise a carrier, such as **water**, organic solvent or mixtures thereof. Suitable organic solvent carriers include, but are not limited to: acetonitrile, ethyl acetate, butyl acetate,. . . .

SUMM . . . microbicide, the compositions of the invention are useful in controlling or inhibiting the growth of microorganisms, such as bacteria and **fungi**, in a locus. The compositions of the invention are suitable for use in any locus requiring protection from microorganisms. Suitable. . . .

SUMM . . . as a composition further comprising a suitable carrier. Suitable carriers useful for microbicidal applications include, but are not limited to, **water**; organic solvent, such as ethylene glycol, diethylene glycol, propylene glycol, dipropylene glycol, xylene, toluene, acetone, methyl iso-butyl ketone, or esters;. . . .

SUMM In general, the compositions of the invention comprising a marine antifouling agent are incorporated in a carrier such as **water**; organic solvent, such as xylene, methyl isobutyl ketone, and methyl isoamyl ketone; or mixtures thereof.

SUMM Marine coatings comprise a binder and solvent and optionally other ingredients. The solvent may be either organic solvent or **water**. The compositions of the invention are suitable for use in both solvent- and **water**-based marine coatings. Solvent-based marine coatings are preferred.

SUMM . . . contain one or more of the following: inorganic pigments, organic pigments, or dyes, and controlled release materials, such as rosin. **Water**-based coatings may also optionally contain:

coalescents, dispersants, surface active agents, rheology modifiers, or adhesion promoters. Solvent-based coatings may also optionally. . .

DETD . . . of a sample was placed in a 100 mL sample jar. To the jar was then added 100 mL of **water** containing 0.2% wt of sodium octylfosuccinate. The solution was then gently stirred to ensure no foam was formed. Aliquots (0.5. . . by HPLC for the amount of the biologically active compound. The microcentrifuge tube was then washed with 0.5 mL of **water** containing 0.2% wt of sodium octylsulfosuccinate and the wash liquid added to the sample jar. This ensured that none of. . .

DETD . . . Control treatment solution. Six of each set of blocks were allowed to dry for 3 weeks and then repressurized with **water**. The blocks were weighed to determine the nominal amount of 4,5-dichloro-2-n-octyl-3-isothiazolone taken up into the blocks. Blocks treated with the. . . equivalent amounts of 4,5-dichloro-2-n-octyl-3-isothiazolone were impregnated into the wood blocks. Six blocks of each treatment set were then immersed in **water** for a period of time. The **water** was then removed and analyzed by HPLC to determine the amount of 4,5-dichloro-2-n-octyl-3-isothiazolone that had leached from the wood blocks. Fresh **water** was then added to the wood blocks and the test repeated. These results are reported in Table 3.

CLM What is claimed is:

8. A method for controlling or inhibiting the growth of **fungi**, bacteria, algae, marine fouling organisms, plants, and insects comprising introducing a composition of claim 1 to a locus to be. . .

IT 52-51-7 101-20-2, 3,4,4'-Trichlorocarbanilide 137-26-8, Tetramethylthiuram disulfide 137-30-4, Zinc dimethyl dithiocarbamate 148-79-8, 2-(4-Thiazolyl)benzimidazole 719-96-0, N-(Fluorodichloromethylthio)phthalimide 971-66-4 1085-98-9 1897-45-6, Tetrachloroisophthalonitrile 2634-33-5, 1,2-Benzisothiazolin-3-one 2682-20-4, 2-Methyl-3-isothiazolone 3380-34-5, 5-Chloro-2-(2,4-dichlorophenoxy)phenol 6317-18-6, Methylene bis thiocyanate 6440-58-0 10222-01-2, 2,2-Dibromo-3-nitrilopropionamide 12122-67-7, Zinc ethylenebisdithiocarbamate 12427-38-2 13108-52-6, 2,3,5,6-Tetrachloro-4-(methylsulfonyl)pyridine 13167-25-4 13463-41-7, Zinc 2-pyridinethiol-1-oxide 20018-09-1, Diiodomethyl-p-tolyl sulfone 21564-17-0, 2-Thiocyanomethylthiobenzothiazole 26172-55-4 26530-20-1, 2-Octyl-3-isothiazolone 26656-82-6, Copper thiocyanate 30007-47-7, 5-Bromo-5-nitro-1,3-dioxane 35691-65-7, 1,2-Dibromo-2,4-dicyanobutane 55406-53-6, 3-Iodo-2-propynyl butylcarbamate 55965-84-9 64359-81-5, 4,5-Dichloro-2-Octyl-3-isothiazolone 64440-88-6 67412-55-9, N,N-Dimethyldichlorophenylurea 82633-79-2 83364-12-9 107846-11-7, Bromochlorodimethylhydantoin 216006-67-6 (controlled-release formulation of)

L17 ANSWER 12 OF 25 USPATFULL

ACCESSION NUMBER: 2000:156982 USPATFULL  
 TITLE: Solid **biocidal** compositions  
 INVENTOR(S): Ghosh, Tirthankar, Oreland, PA, United States  
 PATENT ASSIGNEE(S): Rohm and Haas Company, Philadelphia, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6149927		20001121
APPLICATION INFO.:	US 1998-134318		19980814 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-55750P	19970814 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Raymond, Richard L.	

LEGAL REPRESENTATIVE: Rogerson, Thomas D., Cairns, S. Matthew  
NUMBER OF CLAIMS: 10  
EXEMPLARY CLAIM: 1  
LINE COUNT: 683

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Solid **biocidal** compositions

AB Disclosed are solid compositions containing **biocidal** compounds that do not rapidly release the **biocidal** compounds when added to a locus to be protected and methods of controlling or inhibiting the growth of microorganisms in. . .

SUMM This invention relates generally to solid compositions of **biocidal** compounds. In particular, this invention relates to solid compositions that provide controlled release of **biocidal** compounds.

SUMM The ability to control release of **biocidal** compounds to a locus to be protected is important in the field of **biocidal** compounds, especially in the field of microbicides and marine antifouling agents. Typically, when a **biocidal** compound is added to a locus to be protected, the compound is rapidly released, whether or not it is needed. Controlled release compositions deliver the **biocidal** compound in a manner that more closely matches the need for the compound. In this way, only the amount of the **biocidal** compound needed is released into the locus to be protected. Controlled release offers the advantages of reduced cost, lowered toxicity. . .

SUMM Solid formulations of **biocidal** compounds are a useful method of delivering **biocidal** compounds to a locus to be protected. Solid formulations also offer the advantage of safening the **biocidal** compound by reducing the possibility of human exposure. For example, solid compositions eliminate the splash hazard that is common with. . .

SUMM Various solid compositions of **biocidal** compounds are known. Such methods include encapsulation of the **biocidal** compound, adsorption of the **biocidal** compound on an inert carrier, such as silica gel, and clathration of the **biocidal** compound.

SUMM However, such solid compositions do not always provide controlled release of the **biocidal** compounds. For example, solid compositions where the **biocidal** compound is adsorbed on an inert solid carrier usually do not control the release of the **biocidal** compound. Typically, once such a solid composition is added to a locus to be protected, the **biocidal** compound is rapidly released. Thus, any safening of the **biocidal** compound provided by the solid composition is lost once the composition is added to the locus.

SUMM For example, EP 106 563 A (Melamed) discloses microbicidal compositions having a **water** soluble microbicide admixed with an inert, finely-divided, **water**-insoluble solid carrier, such as clays, inorganic silicates and silicas. These compositions do not provide controlled release of the **biocidal** compounds. The compounds release into the locus by dissolution, and therefore, their release is controlled by the dissolution rate of the particular **biocidal** compound. This application does not disclose zirconium hydroxide.

SUMM . . . slowly release antibiotics, Kennedy et al. do not recognize the special ability of zirconium hydroxide to control the release of **biocidal** compounds. The other metal hydroxides in Kennedy et al., such as titanium hydroxide, do not control the release of **biocidal** compounds. There is no discussion of microbicidal compounds or marine antifouling agents.

SUMM The problem addressed by the present invention is to provide solid compositions of **biocidal** compounds that are safer to handle and provide controlled release of **biocidal** compounds once the composition is added to a locus to be protected.

SUMM The present invention provides a solid composition comprising a **biocidal** compound and zirconium hydroxide, wherein the composition provides controlled release of the **biocidal**

compound.

SUMM The term "**biocidal** compounds" refers to microbicides and marine antifouling agents. "Microbicide" refers to a compound capable of inhibiting the growth of or. . . locus. The term "locus" does not include pharmaceutical or veterinary applications. The term "microorganism" includes, but is not limited to, **fungi**, bacteria, and algae.

SUMM Preferred **biocidal** compounds are 2-n-octyl-4-isothiazolin-3-one; 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one; 5-chloro-2-methyl-4-isothiazolin-3-one; 2-methyl-4-isothiazolin-3-one; 1,2-benzisothiazolin-3-one; 2-methyl-4,5-trimethylene-4-isothiazolin-3-one; 3-iodopropargyl-N-butylcarbamate; zinc 2-pyridinethiol-1-oxide; sodium 2-pyridinethiol-1-oxide; 3,4,4'-trichlorocarbanilide; 2-bromo-2-nitro-1,3-propanediol; 1,2-dibromo-2,4-dicyanobutane; methylenebis(thiocyanate); 3-bromo-1-chloro-5,5-dimethylhydantoin; 2,2-dibromo-3-nitrilopropionamide; 2,4,5,6-tetrachloroisophthalonitrile;

SUMM The **biocidal** compounds useful in this invention are generally commercially available. Zirconium hydroxide, also known as hydrous zirconia, is commercially available from. . .

SUMM When the **biocidal** compound is a solid, the compositions of the invention may be prepared by mixing the **biocidal** compound, as a melt or as a solution, with the zirconium hydroxide. When the **biocidal** compound is a liquid, the **biocidal** compound may be mixed as is with the zirconium hydroxide, or mixed as a solution with the zirconium hydroxide. Suitable solvents for the **biocidal** compound are any which dissolve the compound, do not destabilize it and do not react with the zirconium hydroxide. Suitable. . .

SUMM The total amount of **biocidal** compound in the composition is 0.1% wt to 95% wt based on the weight of zirconium hydroxide. Preferably, the total amount of **biocidal** compound is 0.1 to 30% wt. Thus, the weight ratio of **biocidal** compound to zirconium hydroxide in the compositions is generally 0.1:99.9 to 95:5 and preferably 0.1:99.9 to 30:70.

SUMM For compositions of the invention comprising certain **biocidal** compounds, a portion of the **biocidal** compound may be rapidly released to a locus while the remaining portion of the **biocidal** compound is released in a controlled manner. When this is the case, generally up to 25 mole percent of the **biocidal** compound is released in a controlled manner and the excess over 25 mole percent is rapidly released. The amount that is released in a controlled manner depends upon the particular **biocidal** compound used. For example, when the compositions of the invention comprise generally more than 16% wt (approximately 9 mole percent). . . 16% wt is released to the locus in a controlled manner. Generally, adding more than 25 mole percent of the **biocidal** compound to the compositions of the invention provides **biocidal** compound that is rapidly released to the locus for initial control of microorganisms and controlled release of the remaining **biocidal** compound for extended control of microorganisms. Compositions comprising greater than 25 mole percent of **biocidal** compound may be preferred for use in certain loci where both initial control and extended control are required.

SUMM More than one **biocidal** compound may be used in the compositions of the present invention as long as the compounds do not react with, or otherwise destabilize, each other and are compatible with the zirconium hydroxide. This has the advantage of safening multiple **biocidal** compounds which may provide a broader spectrum of control than one compound alone. Also, this may reduce the cost of treatment when multiple **biocidal** compounds must be used.

SUMM The compositions of the invention are useful wherever the **biocidal** compound would be useful. When the **biocidal** compound is a microbicide, the compositions of the invention are useful in controlling or inhibiting the growth of microorganisms, such as



bacteria, fungi and algae, in a locus. The compositions of the invention are suitable for use in any locus requiring protection from.

- SUMM . . . as a composition further comprising a suitable carrier. Suitable carriers useful for microbicidal applications include, but are not limited to, **water**; organic solvent, such as ethylene glycol, diethylene glycol, propylene glycol, dipropylene glycol, xylene, toluene, acetone, methyl isobutyl ketone, or esters; . . .
- SUMM When the **biocidal** compound of the present invention is a marine antifouling agent, the compositions of the present invention can be used to. . .
- SUMM In general, the compositions of the invention comprising a marine antifouling agent are incorporated in a carrier such as **water**; organic solvent, such as xylene, methyl isobutyl ketone, and methyl isoamyl ketone; or mixtures thereof.
- SUMM Marine coatings comprise a binder and solvent and optionally other ingredients. The solvent may be either organic solvent or **water**. The compositions of the invention are suitable for use in both solvent and **water** based marine coatings. Solvent based marine coatings are preferred.
- SUMM . . . optionally contain one or more of the following: inorganic pigments, organic pigments, or dyes, and natural resins, such as rosin. **Water** based coatings may also optionally contain: coalescents, dispersants, surface active agents, rheology modifiers, or adhesion promoters. Solvent based coatings may. . .
- DETD Sample 1 and a comparative sample were evaluated for their release of **biocidal** compound.
- DETD The amount of **biocidal** compound released from each sample was determined according to the following general procedure. A weighed amount of sample was placed in a 100 mL sample jar. To the jar was then added 100 mL of **water** containing 0.3% wt of sodium diethylhexylsulfosuccinate. The solution was then gently stirred to ensure no foam was formed. Aliquots (0.5. . . at 14,000 rpm for 3 minutes. The supernatant was then removed and analyzed by HPLC for the amount of the **biocidal** compound. The microcentrifuge tube was then washed with 0.5 mL of **water** containing 0.3% of sodium diethylhexylsulfosuccinate and the wash liquid added to the sample jar. This ensured that none of the. . .
- DETD A comparative solid composition of a **biocidal** compound with titanium (IV) hydroxide was prepared and evaluated.
- DETD A comparative solid composition of a **biocidal** compound with zirconium oxide was prepared and evaluated.

Material	g/L
Natrosol 250 MHR hydroxyethyl cellulose	3.6
Ethylene glycol	30
<b>Water</b>	134.4
Tamol 960 (40%) poly(methacrylic acid)	8.6
Triton CF-10 surfactant	3.1
Colloid 643 defoamer	1.2
Propylene glycol	40.8
Ti-Pure R-902 titanium dioxide	270
Minex 4 filler. . .	

Material	g/L
Film forming acrylic copolymer	367.1
Colloid 643 defoamer	3.6

Texanol coalescent	11.3
Ammonia (28%)	2.8
Natrosol 250 MHR hydroxyethyl cellulose	128.4
<b>Water</b>	<b>130.8</b>

DETD	Sufficient mildewcide was added to the paint formulation to give either 1000, 5000, 6000, or 30,000 ppm <b>biocidal</b> compound.							
DETD	. . . containing zirconium hydroxide alone ("Sample C-4"), 4,5-dichloro-2-n-octyl-3-isothiazolone alone ("Sample C-5"), and 2-n-octyl-3-isothiazolone alone ("Sample C-6"). The actual amounts of the <b>biocidal</b> compounds used are reported in Tables 5 and 6.							
DETD	. . . subjected to a leaching test to simulate a wet environment. The dried discs on the reservoirs were placed in a <b>water</b> bath with running <b>water</b> . After various times, the discs were removed from the <b>water</b> bath and dried at room temperature.							
DETD	. . . dried, the discs were placed on a malt agar plate (25.4.times.25.4 cm) and then inoculated with a mixture of five <b>fungi</b> : <i>Aspergillus niger</i> , <i>Aureobasidium pullulans</i> , <i>Cladosporium cadosporioides</i> , <i>Penicillium purpurogenum</i> , and <i>Stachybotrys chartrum</i> . The inoculated plates were then incubated at 30.degree. C.. . .							
DETD				6000	2	--	--	--
C-4	30,000	2	--	--	--	--	--	--

\*The control was a paint that contained no **biocidal** compound.

CLM What is claimed is:

1. A solid composition comprising zirconium hydroxide and a **biocidal** compound selected from the group consisting of 2-n-octyl-4-isothiazolin-3-one; 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one; 5-chloro-2-methyl-4-isothiazolin-3-one; 2-methyl-4-isothiazolin-3-one; 1,2-benzisothiazolin-3-one; 2-methyl-4,5-trimethylene-4-isothiazolin-3-one; zinc 2-pyridinethiol-1-oxide; sodium 2-pyridinethiol-1-oxide; 3,4,4'-trichlorocarbanilide; 2-bromo-2-nitro-1,3-propanediol; 1,2-dibromo-2,4-dicyanobutane; . . . chloride; dodecylguanidine hydrochloride; 2-(decylthio)ethaneamine hydrochloride; tetrakis(hydroxymethyl)phosphonium chloride; tetrakis(hydroxymethyl)phosphonium sulfate and mixtures thereof, wherein the composition provides controlled release of the **biocidal** compound.

2. The composition of claim 1 wherein the **biocidal** compound is selected from the group consisting of 2-n-octyl-4-isothiazolin-3-one; 4,5-dichloro-2-n-octyl-4-isothiazolin-3-one; 5-chloro-2-methyl-4-isothiazolin-3-one; 2-methyl-4-isothiazolin-3-one; 1,2-benzisothiazolin-3-one; 2-methyl-4,5-trimethylene-4-isothiazolin-3-one; zinc 2-pyridinethiol-1-oxide; sodium 2-pyridinethiol-1-oxide; 3,4,4'-trichlorocarbanilide; 2-bromo-2-nitro-1,3-propanediol; . . .

3. The composition of claim 1 wherein the weight ratio of **biocidal** compound to zirconium hydroxide is from 0.1:99.9 to 95:5.

5. The composition of claim 1 further comprising a carrier selected from the group consisting of **water**, acetonitrile, ethyl acetate, butyl acetate, toluene, xylene, methanol, ethanol, acetone, methyl ethyl ketone, methyl isobutyl ketone, ethylene glycol, diethylene glycol, . . .

6. The composition of claim 1 wherein the **biocidal** compound is selected from the group consisting of 4,5-dichloro-2-n-octyl-3-isothiazolone; 2-n-octyl-3-isothiazolone; 3:1 mixture of 5-chloro-2-methyl-3-isothiazolone and 2-methyl-3-isothiazolone; and 3,4,4'-trichlorocarbanilide.

7. A method of controlling the release of a **biocidal** compound selected from the group consisting of 2-n-octyl-4-isothiazolin-3-one;

4,5-dichloro-2-n-octyl-4-isothiazolin-3-one; 5-chloro-2-methyl-4-isothiazolin-3-one; 2-methyl-4-isothiazolin-3-one; 1,2-benzisothiazolin-3-one; 2-methyl-4,5-trimethylene-4-isothiazolin-3-one; 3-iodopropargyl-N-butylcarbamate; zinc 2-pyridinethiol-1-oxide; sodium 2-pyridinethiol-1-oxide; 3,4,4'-trichlorocarbanilide; 2-bromo-2-nitro-1,3-propanediol;. . . dimethyl dichlorobenzylammonium chloride; dodecylguanidine hydrochloride; 2-(decylthio)ethaneamine hydrochloride; tetrakis(hydroxymethyl)phosphonium chloride; tetrakis(hydroxymethyl)phosphonium sulfate and mixtures thereof, comprising the step of mixing the **biocidal** compound with zirconium hydroxide.

8. A method for controlling the growth of bacteria, **fungi**, algae and marine fouling organisms comprising introducing to a locus to be protected the composition of claim 1.

IT 52-51-7, 2-Bromo-2-nitro-1,3-propanediol 101-20-2, 3,4,4'-Trichlorocarbanilide 126-06-7 1897-45-6, 2,4,5,6-Tetrachloroisophthalonitrile 2634-33-5, 1,2-Benzisothiazolin-3-one 2682-20-4, 2-Methyl-4-isothiazolin-3-one 3489-81-4, 2-(2,4-Dichlorophenoxy)phenol 3811-73-2, Sodium 2-pyridinethiol-1-oxide 6317-18-6, Methylenebis(thiocyanate) 10222-01-2, 2,2-Dibromo-3-nitrilopropionamide 13463-41-7, Zinc 2-pyridinethiol-1-oxide 21564-17-0, 2-(Thiocyanomethylthio)benzothiazole 26172-55-4, 5-Chloro-2-methyl-4-isothiazolin-3-one 26530-20-1, 2-Octyl-4-isothiazolin-3-one 35691-65-7, 1,2-DiBromo-2,4-dicyanobutane 55406-53-6 64359-81-5 82633-79-2  
(controlled-release solid biocidal compns. contg.)

L17 ANSWER 13 OF 25 USPATFULL

ACCESSION NUMBER: 2000:91554 USPATFULL  
TITLE: Controlled release composition incorporating metal oxide glass comprising biologically active compound  
INVENTOR(S): Ghosh, Tirthankar, Orelan, PA, United States  
Nungesser, Edwin Hugh, Horsham, PA, United States  
PATENT ASSIGNEE(S): Rohm and Haas Company, Phila., PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6090399		20000718
APPLICATION INFO.:	US 1998-189479		19981110 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-69243P	19970211 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Page, Thurman K.	
ASSISTANT EXAMINER:	Ghali, Isis	
LEGAL REPRESENTATIVE:	Cairns, S Matthew, Rogerson, Thomas D.	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1340	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . inhibiting or controlling the growth of microorganisms at a locus. The term "microorganism" includes, but is not limited to, industrial **fungi**, bacteria, and algae. The term "locus" refers to an industrial system or product subject to contamination by microorganisms. The term "pest" refers to agricultural and industrial **fungi**, bacteria, algae, insects, mites, and weeds.

SUMM "Agricultural pesticides" include agricultural **fungicides**, herbicides, insecticides and miticides. "Agricultural **fungicide**" refers to a compound capable of inhibiting the growth of or

controlling the growth of **fungi** in an agricultural application, such as treatment of plants and soil; "herbicide" refers to a compound capable of inhibiting the. . .

SUMM Suitable agricultural **fungicides** of the present invention include, but are not limited to: dithiocarbamate and derivatives such as ferbam, ziram, maneb, mancozeb, zineb,. . . thioquinox, benomyl, thiabendazole, vinolozolin, iprodione, procymidone, triadimenol, triadimefon, bitertanol, fluoroimide, triarimol, cycloheximide, ethirimol, dodemorph, dimethomorph, thifluzamide, and, quinomethionate; miscellaneous halogenated **fungicides** such as chloranil, dichlone, chloroneb, tricamba, dichloran, and polychloronitrobenzenes; **fungicidal** antibiotics such as griseofulvin, kasugamycin and streptomycin; miscellaneous **fungicides** such as diphenyl sulfone, dodine, methoxyl, 1-thiocyano-2,4-dinitrobenzene, 1-phenylthiosemicarbazide, thiophanate-methyl, and cymoxanil; as well as acylalanines such as furalaxyl, cyprofuram, surface,. . .

SUMM . . . cannot be dissolved in a solvent. The compositions of the present invention, when used as a liquid before removing any **water** and alcohol, may be added directly to a locus to be protected, such as wood or wood products, or may. . .

SUMM . . . to those skilled in the art. The metal alkoxide monomer and the biologically active compound to be encapsulated are combined. **Water** and a catalyst are then added. The amount of **water** is generally 2 moles per mole of the metal alkoxide. The catalyst is typically added in an amount of 0.00001. . . 15.degree. to 70.degree. C. for a period of 1 hour to 5 days. Once the reaction is complete, any remaining **water** as well as the alcohol produced during the reaction are removed, yielding a gel, as either a viscous liquid or a solid. The shorter the time period during which the **water** and alcohol is removed, the slower the release rate of the biologically active compound from the resulting metal oxide glass.

SUMM . . . may be any solvent which is compatible with the metal alkoxide and the compound to be encapsulated, is miscible with **water**, and is easily removable or compatible with the final product. It is preferred to use a solvent. Suitable solvents include,. . .

SUMM . . . invention are used, they may be added to the reaction at any time prior to the complete removal of the **water** and alcohol. The hydroxylic compound is preferably used as the solvent or added to the reaction just prior to the step of removing the **water** and alcohol. When used as the solvent, the hydroxylic compounds may be used to dissolve the biologically active compound and. . .

SUMM . . . are not limited to: cooling towers; air washers; boilers; mineral slurries; wastewater treatment; ornamental fountains; reverse osmosis filtration; ultrafiltration; ballast **water**; evaporative condensers; heat exchangers; pulp and paper processing fluids; plastics; emulsions and dispersions; paints; marine antifoulant paints; latexes; coatings, such. . . and toiletries; shampoos; soaps; detergents; industrial disinfectants or sanitizers, such as cold sterilants, hard surface disinfectants; floor polishes; laundry rinse **water**; metalworking fluids; conveyor lubricants; hydraulic fluids; leather and leather products; textiles; textile products; wood and wood products, such as plywood, chipboard, flakeboard, laminated beams, oriented strandboard, hardboard, and particleboard; petroleum processing fluids; fuel; oilfield fluids, such as injection **water**, fracture fluids, and drilling muds; agriculture adjuvant preservation; surfactant preservation; medical devices; diagnostic reagent preservation; food preservation, such as plastic. . .

SUMM . . . as a composition further comprising a suitable carrier. Suitable carriers useful for microbicidal applications include, but are not limited to, **water**; organic solvent; or mixtures thereof. Suitable organic solvents include, but are not limited to: ethylene glycol, diethylene glycol, propylene glycol,. . .

SUMM In general, the compositions of the present invention comprising a marine antifouling agent are incorporated in a carrier such as

**water**; organic solvent, such as xylene, methyl isobutyl ketone, and methyl isoamyl ketone; or mixtures thereof.

SUMM Marine coatings comprise a binder and solvent and optionally other ingredients. The solvent may be either organic solvent or **water**. The compositions of the present invention are suitable for use in both solvent- and **water**-based marine coatings. Solvent-based marine coatings are preferred.

SUMM . . . contain one or more of the following: inorganic pigments, organic pigments, or dyes, and controlled release materials, such as rosin. **Water**-based coatings may also optionally contain: coalescents, dispersants, surface active agents, rheology modifiers, or adhesion promoters. Solvent-based coatings may also optionally. . .

DETD Metal alkoxide monomer(s), biologically active compound, and **water** were combined in a flask. The mole ratio of metal alkoxide monomer to **water** was 1:2. The amount of biologically active compound was such that the final product contained from 2-50 wt %. This.

DETD Metal alkoxide monomer(s), biologically active compound, and **water** were combined in a flask. The mole ratio of metal alkoxide monomer to **water** was 1:2. The amount of biologically active compound was such that the final product contained from 5-50 wt %. The.

DETD MTEOS (9.2 g), 4,5-dichloro-2-n-octyl-3-isothiazolone (1.1 g), and **water** (1.9 g) were combined in a flask. This reaction mixture was homogenized by adding 6.6 g of ethanol while stirring. . .

DETD . . . of a sample was placed in a 100 mL sample jar. To the jar was then added 100 mL of **water** containing 0.2% wt of sodium octylsulfosuccinate. The solution was then gently stirred to ensure no foam was formed. Aliquots (0.5 . . . by HPLC for the amount of the biologically active compound. The microcentrifuge tube was then washed with 0.5 mL of **water** containing 0.2% wt of sodium octylsulfosuccinate and the wash liquid added to the sample jar. This ensured that none of. . .

DETD . . . size of the compositions of Examples 1-47 were measured. A small amount of sample was placed in a container of **water** attached to a Coulter counter. A **water**-soluble, non-ionic surfactant was then added to the container to disperse the sample particles. Once the particles were dispersed, the particle. . .

CLM What is claimed is:

. . . biologically active compound is an agricultural pesticide selected from the group consisting of: dithiocarbamate derivatives; nitrophenol derivatives; heterocyclic structures; halogenated **fungicides**; **fungicidal** antibiotics; diphenyl sulfone; dodine; methoxyl; 1-thiocyano-2,4-dinitrobenzene; 1-phenylthiosemicarbazide; thiophanate-methyl; cymoxanil; acylalanines; phenylbenzamide; amino acid derivatives; methoxyacrylates; propamocarb; imazalil; carbendazim; myclobutanil; fenbuconazole; . . .

. . . butyl carbamate; 1,2-dibromo-2,4-dicyanobutane; methylene-bis-thiocyanate; 2-thiocyanomethylthiobenzothiazole; 2,4,5,6-tetrachloroisophthalonitrile; 5-bromo-5-nitro-1,3-dioxane; 2,2-dibromo-3-nitrilopropionamide; 3-bromo-1-chloro-5,5-dimethylhydantoin; 1,2-benzisothiazolin-3-one; 2-methyl-4,5-trimethylene-3-isothiazolone; 3,4,4'-trichlorocarbanilide; dithiocarbamate derivatives; nitrophenol derivatives; heterocyclic structures; halogenated **fungicides**; **fungicidal** antibiotics; diphenyl sulfone; dodine; methoxyl; 1-thiocyano-2,4-dinitrobenzene; 1-phenylthio-semicarbazide; thiophanate-methyl; cymoxanil; acylalanines; phenylbenzamide; amino acid derivatives; methoxyacrylates; propamocarb; imazalil; carbendazim; myclobutanil; fenbuconazole; . . .

. . . butyl carbamate; 1,2-dibromo-2,4-dicyanobutane; methylene-bis-thiocyanate; 2-thiocyanomethylthiobenzothiazole; 2,4,5,6-tetrachloroisophthalonitrile; 5-bromo-5-nitro-1,3-dioxane; 2,2-dibromo-3-nitrilopropionamide; 3-bromo-1-chloro-5,5-dimethylhydantoin; 1,2-benzisothiazolin-3-one; 2-methyl-4,5-trimethylene-

3-isothiazolone; 3,4,4'-trichlorocarbanilide; dithiocarbamate derivatives; nitrophenol derivatives; heterocyclic structures; halogenated **fungicides**; **fungicidal** antibiotics; diphenyl sulfone; dodine; methoxyl; 1-thiocyano-2,4-dinitrobenzene; 1-phenylthiosemicarbazide; thiophanate-methyl; cymoxanil; acylalanines; phenylbenzamide; amino acid derivatives; methoxyacrylates; propamocarb; imazalil; carbendazim; myclobutanil; fenbuconazole; . . .  
 . . . 3-iodo-2-propynyl butyl carbamate; 1,2-dibromo-2,4-dicyanobutane; methylene-bis-thiocyanate; 2-thiocyanomethylthiobenzothiazole; 2,4,5,6-tetrachloroisophthalonitrile; 5-bromo-5-nitro-1,3-dioxane; 2,2-dibromo-3-nitrilopropionamide; 3-bromo-1-chloro-5,5-dimethylhydantoin; 1,2-benzisothiazolin-3-one; 2-methyl-4,5-trimethylene-3-isothiazolone; 3,4,4'-trichlorocarbanilide; dithiocarbamate derivatives; nitrophenol derivatives; heterocyclic structures; halogenated **fungicides**; **fungicidal** antibiotics; diphenyl sulfone; dodine; methoxyl; 1-thiocyano-2,4-dinitrobenzene; 1-phenylthio-semicarbazide; thiophanate-methyl; cymoxanil; acylalanines; phenylbenzamide; amino acid derivatives; methoxyacrylates; propamocarb; imazalil; carbendazim; myclobutanil; fenbuconazole; . . .  
 IT 2682-20-4, 2-Methyl-3-isothiazolone 26172-55-4 28159-98-0,  
 2-(Methylthio)-4-tert-butylamino-6-(cyclopropylamino)-s-triazine  
 55406-53-6, 3-Iodo-2-propynyl butyl carbamate 64359-81-5,  
 4,5-Dichloro-2-n-octyl-3-isothiazolone

(controlled-release compns. contg. agricultural pesticide, microbicide or antifouling agent incorporated into metal oxide glass)

L17 ANSWER 14 OF 25 USPATFULL

ACCESSION NUMBER: 2000:87734 USPATFULL

TITLE: Personal treatment compositions and/or cosmetic compositions containing enduring perfume

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PATENT INFORMATION:	US 6086903		20000711
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LEGAL REPRESENTATIVE:	Camp, Jason J.		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3846		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . hair). During a cleansing process, a substantial amount of perfume in the personal cleanser compositions is lost with the rinse **water** and in the subsequent drying. On the other hand, some products, especially leave-on and cosmetic products can leave a considerable. . .

SUMM (C) the balance comprising carrier, normally liquid, including **water**, C.sub.1 -C.sub.4 monohydric alcohols, C.sub.2 -C.sub.6 polyhydric alcohols, propylene carbonate, liquid polyalkylene glycols, and the like, and mixtures thereof,

SUMM . . . compositions since they require minimal material to provide long lasting effects even when the skin is in contact with the **water**, as when swimming. Personal treatment compositions such as deodorants, perfumes, colognes, suntan lotions, skin softening lotions, etc., which are meant. . .

SUMM (C) the balance comprising liquid carrier, normally comprising material

selected from the group consisting of: **water**; C.sub.1 -C.sub.4 monohydric alcohols; C.sub.2 -C.sub.6 polyhydric alcohols; propylene carbonate; liquid polyalkylene glycols; and the like; and mixtures thereof,

SUMM . . . ingredients that can be used with the above named enduring perfume ingredients can be characterized by boiling point (B.P.) and octanol/**water** partitioning coefficient (P). The octanol/**water** partitioning coefficient of a perfume ingredient is the ratio between its equilibrium concentrations in octanol and in **water**. These other enduring perfume ingredients of this invention have a B.P., measured at the normal, standard pressure, of about 250.degree. C. or higher, preferably more than about 260.degree. C.; and an octanol/**water** partitioning coefficient P of about 1,000 or higher. Since the partitioning coefficients of these other enduring perfume ingredients of this. . .

SUMM . . . of such cations. The cation M, of the anionic surfactant should be chosen such that the anionic surfactant component is **water** soluble. Solubility will depend upon the particular anionic surfactants and/or cations chosen. As an aid to determining appropriate mixtures of.

SUMM A suitable class of optional anionic deterative surfactants are aliphatic sulfonates such as represented by the **water**-soluble salts of the organic, sulfuric acid reaction products of the general formula (I):

SUMM . . . R.sub.2 is a lower alkyl group having from about 1 (preferred) to about 3 carbon atoms, and M is a **water**-soluble cation as hereinbefore described.

SUMM . . . product of fatty acids having from 10 to 22 carbon atoms esterified with isethionic acid and neutralized with sodium hydroxide; **water**-soluble salts of condensation products of fatty acids with sarcosine; and others known in the art.

SUMM . . . typically contains from about 8 to about 18 carbon atoms and in which at least one radical contains an anionic **water** solubilizing group, e.g., carboxy, sulfonate, sulfate, phosphate, or phosphonate. Examples of compounds falling within this definition are sodium 3-dodecylaminopropionate, sodium. . .

SUMM . . . and wherein one of the aliphatic substituents contains from about 8 to 18 carbon atoms and one contains an anionic **water** -solubilizing group, e.g., carboxy, sulfonate, sulfate, phosphate, or phosphonate. A general formula (VII) for these compounds is:

SUMM . . . to about 22, and mixtures thereof, typically formulated as a liquid which additionally comprises from about 35% to about 70% **water**, wherein the ratio of said soap plus any synthetic surfactant, which is optionally added, to said free fatty acids plus. . .

SUMM The level of **water** in the above soap based liquid composition is typically from about 35% to about 70%, preferably from about 40% to.

SUMM The crystalline suspending agent can be incorporated into the shampoos hereof by solubilizing it into a solution containing **water** and the anionic sulfate surfactant at a temperature above the melting point of the suspending agent. The suspending agent is. . .

SUMM . . . desired viscosities. Suitable thickeners are listed in the Glossary and Chapters 3, 4, 12 and 13 of the Handbook of **Water** -Soluble Gums and Resins, Robert L. Davidson, McGraw-Hill Book Co., New York, N.Y., 1980, incorporated by reference herein.

SUMM . . . also be used as optional suspension agents include those that can impart a gel-like viscosity to the composition, such as **water** soluble or colloiddally **water** soluble polymers like cellulose ethers (e.g., hydroxyethyl cellulose), guar gum, polyvinyl alcohol, polyvinyl pyrrolidone, hydroxypropyl guar gum, starch and starch. . .

SUMM 3. **Water**

SUMM . . . about 89%, preferably from about 50% to about 85%, more preferably from about 60% to about 80%, by weight, of **water**.

SUMM . . . 8%, more preferably from about 0.2% to about 5%, by weight, of a dispersed phase, i.e., an emulsion, of a **water**-insoluble, nonvolatile, fluid hair conditioning agent. This component will be suspended in the form of droplets, which form a separate, discontinuous.

SUMM By "**water** insoluble" what is meant is that the material is not soluble in **water** (distilled or equivalent) at a concentration of 0.1%, at 25.degree. C.

SUMM The non-volatile, **water** insoluble silicone hair conditioning agent component of the present invention is nonvolatile and insoluble in the composition. It will be. . .

SUMM . . . oxide can also be used. The ethylene oxide and polypropylene oxide level must be sufficiently low to prevent solubility in **water** and the composition hereof.

SUMM . . . other region of the body, is applied to the hair or other region that has preferably been wetted, generally with **water**, and then rinsed off. Application to the hair typically includes working the composition through the hair such that most or. . .

SUMM . . . g to about 15 g of the composition, is applied to the body that has preferably been wetted, generally with **water**. Application to the body includes dispensing of the composition onto the hand, onto the body, or onto a washing implement,. . . develop lather. The lather can stand on the body for a length of time or can be rinsed immediately with **water**. Once the product is rinsed from the body the washing procedure can be repeated.

SUMM . . . in hair care compositions. The carriers can contain a solvent to dissolve or disperse the particular copolymer being used, with **water**, the C.sub.1 -C.sub.6 alcohols, and mixtures thereof being preferred; and **water**, methanol, ethanol, isopropanol, propylene carbonate, and mixtures thereof being more preferred. The carriers can also contain a wide variety of. . . and mixtures thereof. When the hair care composition is a hair spray, tonic, gel, or mousse the preferred solvents include **water**, ethanol, volatile silicone derivatives, and mixtures thereof. The solvents used in such mixtures can be miscible or immiscible with each. . . is a spray composition having relatively low levels of volatile organic solvents, such as alcohols, and relatively high levels of **water** (e.g., in excess of about 10%, by weight **water**). If such an emulsifying agent is used, it is preferably present at a level of from about 0.01% to about. . .

SUMM The carrier can be in a wide variety of forms. For example, emulsion carriers, including, but not limited to, oil-in-**water**, **water**-in-oil, **water**-in-oil-in-**water**, and oil-in-**water**-in-silicone emulsions, are useful herein. These emulsions can cover a broad range of viscosities, e.g, from about 100 cps to about. . .

SUMM Preferred cosmetically and/or pharmaceutically acceptable topical carriers include hydro-alcoholic systems and oil-in-**water** emulsions. When the carrier is a hydro-alcoholic system, the carrier can comprise from about 1% to about 99% of ethanol, isopropanol, or mixtures thereof, and from about 1% to about 99% of **water**. More preferred is a carrier comprising from about 5% to about 60% of ethanol, isopropanol, or mixtures thereof, and from about 40% to about 95% of **water**. Especially preferred is a carrier comprising from about 20% to about 50% of ethanol, isopropanol, or mixtures thereof, and from about 50% to about 80% of **water**. When the carrier is an oil-in-**water** emulsion, the carrier can include any of the common excipient ingredients for preparing these emulsions. In fine fragrances, the carrier. . .

SUMM Suitable types of deodorant actives include antimicrobial ingredients such as bactericides and **fungicides**. Exemplary deodorant actives include quaternary ammonium compounds such as cetyl-trimethylammonium bromide, cetyl pyridinium chloride, benzethonium chloride, diisobutyl phenoxy ethoxy ethyl. . .



SUMM . . . understood that the above formula is greatly simplified and is intended to represent and include compounds having coordinated and/or bound **water** in various quantities, as well as polymers, mixtures and complexes of the above. As will be seen from the above. .

SUMM (A) co-dissolving in **water**

SUMM . . . utilized in the present invention are also well known in the art. These materials utilize monohydric or polyhydric alcohols or **water** to solublize the antiperspirant active before it is incorporated into the product. The levels of these polar solvents are typically. . .

DETD . . . . 20 20 20

Sodium Chloride Add as needed to thicken  
to target viscosity

Ammonium Xylene Add as needed to thicken

Sulfonate.sup.(3)

to target viscosity

**Water** q.s. to 100%

Compositions

Ingredients	6	7	8	9	10
-------------	---	---	---	---	----

(ppm or %, by weight,  
of composition)

Sodium Laureth-3

	13.5	13.5	16.0	8.0	16.0
--	------	------	------	-----	------

Sulfate

Ammonium. . . 20 20 20

Sodium Chloride

Add as needed to thicken to target viscosity

Ammonium Xylene

Add as needed to thicken to target viscosity

Sulfonate.sup.(3)

**Water** q.s. to 100%

.sup.(1) Ucare .RTM. Polymer JR30M, commercially available from Union Carbide Corporation.

.sup.(2) A 40/60 blend of SE76. . .

DETD . . . -- -- --

Perfume G -- -- 0.70 -- --

Perfume H -- -- -- 0.70 --

Perfume I -- -- -- -- 0.70

**Water** to 100

Compositions

Ingredients	19	20	21
-------------	----	----	----

Amphoteric.sup.(1)

	5.0	5.0	--
--	-----	-----	----

Sodium laureth-3 sulfate

	10.0	10.0	--
--	------	------	----

APG.sup.(2)

	2.5	2.5	--
--	-----	-----	----

Coconut diethanolamide

	3.0	--	3.0
--	-----	----	-----

Titanium dioxide

	--	--	0.10
--	----	----	------

Sodium benzoate

	--	--	0.25
--	----	----	------

Glydant

	--	--	0.13
--	----	----	------

Sodium EDTA

	--	--	0.13
--	----	----	------

Mg sulfate heptahydrate

	--	--	0.55
--	----	----	------

**Water** to 100

.sup.(1) Empigen .RTM. CDR 60 an aqueous mixture of about 26.5%

cocoamphoacetate (the amphoteric of Formula I and/or. . .

DETD Compositions 14 to 18 are prepared by: forming a gel phase A of Merquat 550 and/or JR400 in **water**; forming an aqueous phase B containing the remaining **water**-soluble, oil-insoluble ingredients; forming an oil phase C containing the Ceraphyl GA, myristic acid, coconut diethanolamide, and pearlescer; admixing phases A. . . the perfume A. Compositions 19 to 21 are prepared by: forming a surfactant phase A containing a portion of the **water**, the anionic and amphoteric surfactants and the remaining **water** -soluble, oil-insoluble ingredients; forming an oil phase B containing the myristic acid, coconut diethanolamide, PEG(6) caprylic/capryl glycerate and oil; admixing B with A at about 40-50.degree. C.; adding the remaining **water**, preservative and perfume B; cooling to ambient temperature; and admixing the Ceraphyl GA. The average particle size of the emulsion. . .

DETD . . . 1.00 --  
 16) Perfume I -- -- -- 1.00  
 17) KOH or NaOH If necessary, adjust premix to pH = 7  
 18) **Water** Balance to 100

Compositions					
Ingredients	30	31	32	33	34
1) Soap (K or Na)					
	20.00	25.00	15.00	15.00	11.00
30%. . .	1.10	--			
16) Perfume I	--	--	--	--	1.10
17) KOH or NaOH	If necessary, adjust premix to pH = 7				
18) <b>Water</b>	Balance to 100				

DETD . . . When the fatty acids are completely melted, reacting the fatty acid mixture to soap with KOH (45% solution) and the **water**;  
 DETD The following oil-in-**water** emulsions contain no soap, have an average oil droplet size of about 30 microns, and have a pH from about.

DETD . . . -- -- --  
 Perfume G -- -- 1.00 -- --  
 Perfume H -- -- -- 1.00 --  
 Perfume I -- -- -- -- 1.00  
**Water** Balance to 100

Compositions				
Ingredients	40	41	42	43
Na Mg Laureth-				
	12.00	15.00	--	--
3.6 sulfate				
Lauroamphoacetate	--	6.00	10.00	8.00
Decylglucoside				
	2.50.	. . .	0.10	
hydrate				
Perfume F	1.20	--	--	--
Perfume G	--	1.20	--	--
Perfume H	--	--	1.20	--
Perfume I	--	--	--	1.20
<b>Water</b>	Balance to 100			

DETD Compositions 35 to 43 are prepared by: forming a gel phase A by dispersing Polyquaternium 10 in **water** at about 25.degree. C. with strong agitation. When phase A is thoroughly dispersed begin heating to about 45.degree.-50.degree. C. and. . .

DETD . . . 0.20 0.20  
 Citric acid 0.20 0.25

## Ethylene glycol distearate

	1.50	--		
Pearlescer	--	0.43		
Polymer Jaguar C-14S	0.25	--		
Perfume E	0.25	--		
Perfume F	--	0.30		
<b>Water</b>	Balance to 100			

Compositions						
Ingredients	46	47	48	49	50	
Myristic acid	--	--	7.51	1.50	--	
Tallow fatty acid	--	--	6.51.	. .	--	0.80
Sodium benzoate	0.25	0.25	0.25	0.25	0.25	
Disodium EDTA	0.13	0.13	0.13	0.13	0.13	
DMDM Hydantoin	0.14	0.14	0.14	0.14	0.14	
Water	Balance to 100					

Compositions				
Ingredients	51	52	53	54
Ammonium or sodium				
12.00	5.00	--	--	
laureth-3 sulfate				
Cocamidopropyl amine				
--	5.00	2.50	2.00	
oxide				
Na. . . 0.14				
Perfume G	0.90	--	--	--
Perfume H	--	0.80	--	--
Perfume I	--	--	0.80	--
Perfume E	--	--	--	0.80
<b>Water</b>	Balance to 100			

DETD Compositions 44 to 54 are prepared by: forming a gel phase A comprising **water** and polymer (e.g., Carbomer, Polyquaternium 10, Polyquaternium 11). When phase A is completely dispersed, begin heating to about 70.degree. C. . . .

Compositions				
Ingredients	55	56	57	58
<b>Water</b>	QS 100	QS 100	QS 100	QS 100
Ethanol (SCA 40)				
79.0	79.0	79.0	90.0	
Copolymer.sup.(1)				
4.0	4.0	3.0	3.0	
Perfume F	0.1	.	.	

DETD These products are prepared by first dissolving the polymer in the ethanol with stirring. The **water** and fragrance are then added with stirring. The resulting hair spray compositions can then be packaged in a nonaerosol spray. . . .

Compositions				
Ingredients	59	60	61	62
<b>Water</b>	QS 100	QS 100	QS 100	QS 100
Ethanol	54.0	54.0	54.0	54.0

## Copolymer of Example 58

4.0	3.0	4.0	3.0
-----	-----	-----	-----

Perfume E. . .

DETD These products are prepared by first dissolving the polymer in the ethanol with stirring. The **water** and fragrance are then added with stirring. The resulting hair spray compositions can then be packaged in a nonaerosol spray. . .

DETD

Ingredients	63	64	65
-------------	----	----	----

<b>Water</b>	QS 100	QS 100	QS 100
--------------	--------	--------	--------

Copolymer of Example 58

3.00	2.50	3.50
------	------	------

Lauramide DEA	0.33	0.33	0.33
---------------	------	------	------

Sodium Methyl Oleyl Taurate

1.67.		
-------	--	--

DETD These products are prepared by first dissolving the polymer in **water** with stirring. The remaining ingredients, except the propellant, are then added with stirring. The resulting mousse concentrate can then be. . .

DETD

Ingredients	Weight %
-------------	----------

Styling Agent Premix

Copolymer of Example 58

1.00
------

Silicone Premix

Silicone gum, GE SE76.sup.(1)

0.30
------

Octamethyl cyclotetrasiloxane

1.70
------

Main Mix

<b>Water</b>	QS100
--------------	-------

Cetyl Alcohol

1.00
------

Quaternium 18.sup.(2)

0.85
------

Stearyl Alcohol

0.70
------

Hydroxethyl cellulose

0.50
------

Ceteareth-20

0.35
------

Perfume E

0.20
------

Dimethicone copolyol

0.20
------

Citric Acid

0.13
------

Methylchloroisothiazolinone (and)

0.04
------

**methylisothiazolinone**

Sodium Chloride

0.01
------

.sup.(1) Commercially available from General Electric.

.sup.(2) Dimethyl Di(Hydrogenated Tallow) Ammonium Chloride

DETD

Ingredient	Weight %
------------	----------

<b>Water</b>	QS100
--------------	-------

Salicylic Acid

2.0
-----

Copolymer from Example 58.sup.1

2.0
-----

Ethanol (SDA 40)

40.0
------

Perfume F

0.05
------

DETD

Ingredients	Weight %
-------------	----------

<b>Water, Purified</b>	QS100
------------------------	-------

Ibuprofen	2.0
Copolymer from Example 58.sup.1	2.0
Ethanol (SDA 40)	20.0
Perfume G	0.03

---

DETD

Ingredients	Weight %
-------------	----------

---

Phase A

Water	qs 100
Copolymer from Example 58	2.00
Carbomer 934.sup.(1)	0.20
Carbomer 980.sup.(2)	0.15
Acrylic Acid Copolymer.sup.(3)	0.15

Phase B

PPG-20 Methyl Glucose Ether	2.00
-----------------------------	------

Distearate

Tocopheryl Acetate	1.20
Mineral. . .	2.00
Stearyl Alcohol	1.00
Shea Butter	1.00
Cetyl Alcohol	1.00
Ceteareth-20	2.50
Ceteth-2	1.00
Ceteth-10	1.00

Phase C

DEA-Cetyl Phosphate	0.75
---------------------	------

Phase D

Dihydroxyacetone	3.00
------------------	------

Phase E

Butylene Glycol	2.00
DMDM Hydantoin (and)	0.25

**Iodopropynyl Butylcarbamate**

Phase F

Perfume H	1.00
Cyclomethicone	2.00

---

.sup.(1) Available as Carbopol .RTM. 934 from B.F. Goodrich.

.sup.(2) Available as Carbopol .RTM. 980 from. . .

DETD In a suitable vessel the Phase A ingredients are dispersed in the **water** and heated to about 75-85.degree. C. In a separate vessel the Phase B ingredients are combined and heated to about. . . emulsion is cooled to about 40-45.degree. C. with continued mixing. Next, in a separate vessel, the dihydroxyacetone is dissolved in **water** and the resulting solution is mixed into the emulsion. In another vessel, the Phase E ingredients are heated with mixing. . .

DETD An oil-in-**water** emulsion is prepared by combining the following components utilizing conventional mixing techniques.

DETD

Ingredients	Weight %
-------------	----------

---

Phase A

Water	QS100
Carbomer 954.sup.(1)	0.24
Carbomer 1342.sup.(2)	

	0.16
Copolymer from Example VI.sup.(3)	
	1.75
Disodium EDTA	0.05
Phase B	
Isoarachidyl Neopentanoate.sup.(4)	
	2.00
PVP Eicosene Copolymer.sup.(5)	
	2.00
Octyl Methoxycinnamate	
	7.50
Octocrylene	4.00
Oxybenzone	1.00
Titanium Dioxide	2.00
Cetyl Palmitate	0.75
Stearoxytrimethylsilane	
	0.50
(and) Stearyl Alcohol.sup.(6)	
Glyceryl Tribehenate.sup.(7)	
	0.75
Dimethicone	1.00
Tocopheryl Acetate	0.10
DEA-Cetyl Phosphate	0.20
Phase C	
Water	2.00
Triethanolamine 99%	0.60
Phase D	
Water	2.00
Perfume I	0.05
Butylene Glycol	2.00
DMDM Hydantoin (and)	
	0.25
Iodopropynyl Butylcarbamate.sup.(8)	
	1.00
dL Panthenol	
Phase E	
Cyclomethicone	1.00

.sup.(1) Available as Carbopol .RTM. 954 from B.F. Goodrich.

.sup.(2) Available as Carbopol .RTM. 1342 from. . .

DETD In a suitable vessel the Phase A ingredients are dispersed in the water and heated to about 75-85.degree. C. In a separate vessel the Phase B ingredients (except DEA-Cetyl Phosphate) are combined and.

DETD

Ingredients	Weight %
-------------	----------

Water	QS100
Copolymer from Example 58	
	1.00
Glycerin	3.00
Cetyl Palmitate	3.00
Cetyl Alcohol	1.26
Quaternium-22	1.00
Glyceryl Monohydroxy Stearate	
	0.74
Dimethicone	0.60
Stearic Acid	0.55
Octyldodecyl Myristate	
	0.20
Perfume E. . .	

L17 ANSWER 15 OF 25 USPATFULL

ACCESSION NUMBER: 2000:27977 USPATFULL

TITLE: Potentiation of **biocide** activity using an  
N-alkyl heterocyclic compound

INVENTOR(S): Whittemore, Marilyn S., Germantown, TN, United States  
Glover, Daniel E., Brighton, TN, United States  
Rayudu, S. Rao, Germantown, TN, United States

PATENT ASSIGNEE(S): Buckman Laboratories International Inc, Memphis, TN,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6034081		20000307
APPLICATION INFO.:	US 1995-453001		19950530 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Spivack, Phyllis G.		
LEGAL REPRESENTATIVE:	Morgan, Lewis & Bockius LLP		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
LINE COUNT:	835		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Potentiation of **biocide** activity using an N-alkyl heterocyclic compound

SUMM . . . as well as their intrinsic characteristics make them susceptible to growth, attack, and degradation by common microorganisms such as algae, **fungi**, yeasts, and bacteria. These microorganisms may be introduced during a manufacturing or other industrial process, by exposure to air, tanks, . . .

SUMM . . . not limited to, latexes, surfactants, dispersants, stabilizers, thickeners, adhesives, starches, waxes, proteins, emulsifying agents, cellulose products, metal working fluids, cooling **water**, waste **water**, aqueous emulsions, aqueous detergents, coating compositions, paint compositions, and resins formulated in aqueous solutions, emulsions or suspensions. These systems frequently contain relatively large amounts of **water** and organic material causing them to be environments well-suited for microbiological growth and thus attack and degradation.

SUMM . . . decreased pH, emulsion breaking, color change, and gelling. Additionally, microbiological deterioration of aqueous systems can cause fouling of the related **water**-handling system, which may include cooling towers, pumps, heat exchangers, and pipelines, heating systems, scrubbing systems, and other similar systems.

SUMM . . . aqueous systems, particularly in aqueous industrial process fluids, is slime formation. Slime formation can occur in fresh, brackish or salt **water** systems. Slime consists of matted deposits of microorganisms, fibers and debris. It may be stringy, pasty, rubbery, tapioca-like, or hard, . . . forms of bacteria which secrete gelatinous substances that envelop or encase the cells. Slime microorganisms also include filamentous bacteria, filamentous **fungi** of the mold type, yeast, and yeast-like organisms. Slime reduces yields in production and causes plugging, bulking, and other problems in industrial **water** systems.

SUMM . . . is a broad spectrum microbicide used in the pulp and paper industry. Kathon is also recommended to control bacteria and **fungi** in **water**-based paper coatings and coating components. Kathon is available from Rohm and Haas, Philadelphia Pa. and as Busan.RTM. 1078 from Buckman. . .

SUMM Bronopol: 2-bromo-2-nitropropane-1,3-diol. Bronopol is available as MYACIDE.RTM. from ANGUS Chemical Company, Northbrook Ill. Bronopol is used in **water** treatment, oil production fluids, waste injection wells, and with pulp and paper. The chemical formula of bronopol is: ##STR4##

SUMM IPBC: Iodopropargyl butyl carbamate. IPBC can be obtained from Troy Chemical, Newark, N.J. IPBC is an effective **fungicide**, particularly in surface coating compositions, such as paint

formulations. IPBC is disclosed in U.S. Pat. Nos. 3,923,870 and 5,219,875. IPBC. . .

SUMM BIT: 1,2-benzisothiazoline-3-one. 1,2-Benzisothiazoline-3-one is a **biocide** useful for a variety of aqueous systems, such as metalworking fluids, paint, adhesives, starch-based-products, cellulose ether solutions, resin and rubber. . .

SUMM . . . microbicides and the corresponding treatment costs for such use, can be relatively high. Important factors in the search for cost-effective **fungicides** include the duration of microbicidal effect, the ease of use and the effectiveness of the microbicide per unit weight.

SUMM . . . by CH.sub.3 C.sub.n H.sub.2n - may be branched or unbranched. Branched alkyl chains may lose some of their solubility in **water** or other aqueous systems. Unbranched alkyl groups are generally preferred.

SUMM . . . N-alkyl heterocyclic compound in a liquid composition or system, such as an aqueous composition or system. In many cases, the **biocidal** composition of the invention may be solubilized by simple agitation.

SUMM . . . also be employed in aqueous systems used in industrial processes such as metal working fluids, cooling waters (both intake cooling **water** and effluent cooling **water**), and waste waters including waste waters or sanitation waters undergoing treatment of the waste in the **water**, e.g. sewage treatment.

SUMM . . . at the press. Alternatively, the pulp may be contacted by mixing the microbicide and N-alkyl heterocyclic compound into the pulp/white **water** mixture, preferably prior to the pulp reaching the formation wire.

SUMM . . . heterocyclic compound may be added into pulp slurries in the headbox, in the substrate forming solution, or in the white **water** system to treat the **water** system itself or for incorporation into the body of the paper. Alternatively, as with other known microbicides, the combination of. . .

DETD . . . surface of a viable culture (agar slant) and introducing the collected spores into a bottle containing 100 ml of sterile **water**. The spore suspension is complete when the optical density=0.28 at 686 nm. The inoculated treatments are incubated in the dark. . .

CLM What is claimed is:

. . . composition according to claim 4, wherein the N-alkyl heterocyclic compound is N-dodecyl morpholine and the microorganism is selected from algae, **fungi**, and bacteria.

. . . composition according to claim 4, wherein the N-alkyl heterocyclic compound is N-dodecyl imidazole and the microorganism is selected from algae, **fungi**, and bacteria.

. . . method according to claim 8, wherein the N-alkyl heterocyclic compound is N-dodecyl morpholine and the microorganism is selected from algae, **fungi**, and bacteria.

. . . method according to claim 8, wherein the N-alkyl heterocyclic compound is N-dodecyl imidazole, and the microorganism is selected from algae, **fungi**, and bacteria.

. . . method according to claim 12, wherein the N-alkyl heterocyclic compound is N-dodecyl morpholine and the microorganism is selected from algae, **fungi**, and bacteria.

. . . method according to claim 12, wherein the N-alkyl heterocyclic compound is N-dodecyl imidazole, and the microorganism is selected from algae, **fungi**, and bacteria.

. . . is selected from the group consisting of a latex, a metal working



fluid, an aqueous emulsion, an aqueous detergent, cooling water  
, and an aqueous resin formulation.

. . . method according to claim 16, wherein the N-alkyl heterocyclic  
compound is N-dodecyl morpholine and the microorganism is selected from  
algae, fungi, and bacteria.

. . . method according to claim 16, herein the N-alkyl heterocyclic  
compound is N-dodecyl imidazole, and the microorganism is selected from  
algae, fungi, and bacteria.

IT 52-51-7D, 2-Bromo-2-nitropropane-1,3-diol, mixts. with  
N-alkylheterocyclic compds. 122-42-9D, IPC, mixts. with  
N-alkylheterocyclic compds. 1541-81-7D, N-Dodecylmorpholine, mixts.  
contg. 1704-28-5D, N-Dodecyl-2,6-dimethylmorpholine, mixts. contg.  
2634-33-5D, 1,2-Benzisothiazol-3(2H)-one, mixts. with N-alkylheterocyclic  
compds. 2682-20-4D, mixts. with N-alkylheterocyclic compds.  
2687-96-9D, N-Dodecyl-2-pyrrolidinone, mixts. contg. 2915-94-8  
4303-67-7D, N-Dodecylimidazole, mixts. contg. 5917-47-5D,  
N-Dodecylpiperidine, mixts. contg. 10222-01-2D, 2,2-Dibromo-3-  
nitrilopropionamide, mixts. with N-alkylheterocyclic compds.  
20422-09-7D, mixts. contg. 25376-38-9D, Tribromophenol, mixts. with  
N-alkylheterocyclic compds. 26172-55-4D, 5-Chloro-2-methyl-4-  
isothiazolin-3-one, mixts. with N-alkylheterocyclic compds.  
55406-53-6D, IPBC, mixts. with N-alkylheterocyclic compds.  
79089-29-5D, mixts. contg. 152720-68-8D, mixts. contg. 152720-69-9D,  
mixts. contg. 152720-70-2D, mixts. contg. 152720-69-9D,  
(synergistic microbicides)

L17 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:392945 CAPLUS

DOCUMENT NUMBER: 131:40955

TITLE: Controlled-release compositions containing  
agricultural pesticide, microbicide or antifouling  
agent incorporated into metal oxide glass

INVENTOR(S): Ghosh, Tirthankar; Nungesser, Edwin Hugh

PATENT ASSIGNEE(S): Rohm and Haas Company, USA

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 922386	A2	19990616	EP 1998-309692	19981125
EP 922386	A3	20000126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6090399	A	20000718	US 1998-189479	19981110
AU 9895159	A1	19990701	AU 1998-95159	19981201
AU 761076	B2	20030529		
SG 71879	A1	20000418	SG 1998-5360	19981208
BR 9805326	A	20000314	BR 1998-5326	19981209
JP 11263702	A2	19990928	JP 1998-352346	19981211
CN 1232610	A	19991027	CN 1998-123093	19981211

PRIORITY APPLN. INFO.: US 1997-69243P P 19971211

AB Disclosed are controlled-release compns. contg. biol. active compds.  
incorporated into metal oxide glass having a porous matrix which is prepd.  
by polymg. one or more metal alkoxide monomers, optionally in the presence  
of a second metal alkoxide monomer. These compns. may be directly  
incorporated into the locus to be protected or may be applied to a  
structure in a coating. Thus, tetraethoxy orthosilicate and

methyltriethoxy orthosilicate (mole ratio 4:1), 4,5-dichloro-2-n-octyl-3-isothiazolone (5% by wt. of the final product), and **water** (mole ratio of alkoxide monomers to **water** 1:2) were combined in a flask and homogenized by adding methanol or ethanol while stirring; then, 8-10 g of 0.01N HCl per mol of metal alkoxide monomer was added to the reaction mixt., which was allowed to polymerize at room temp. for 3-60 days to give a solid organometallic oxide glass contg. the biol. active compd. The cumulative percentages of 4,5-dichloro-2-n-octyl-3-isothiazolone released were 5, 30, 41, 50 and 64% by wt. in 0, 0.5, 2, 31, and 144 h.

IT **Fungicides**

(agrochem.; controlled-release compns. contg. agricultural pesticide, microbicide or antifouling agent incorporated into metal oxide glass)

IT **2682-20-4**, 2-Methyl-3-isothiazolone 26172-55-4 28159-98-0,  
2-(Methylthio)-4-tert-butylamino-6-(cyclopropylamino)-s-triazine  
**55406-53-6**, 3-Iodo-2-propynyl butyl carbamate 64359-81-5,  
4,5-Dichloro-2-n-octyl-3-isothiazolone

RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)  
(controlled-release compns. contg. agricultural pesticide, microbicide or antifouling agent incorporated into metal oxide glass)

L17 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:776610 CAPLUS

DOCUMENT NUMBER: 130:21751

TITLE: Controlled-release formulations of microbicides, pesticides and marine antifouling agents

INVENTOR(S): Ghosh, Tirthankar; Nungesser, Edwin Hugh

PATENT ASSIGNEE(S): Rohm and Haas Company, USA

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 880892	A1	19981202	EP 1998-303785	19980514
EP 880892	B1	20021218		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6221374	B1	20010424	US 1998-73282	19980506
AU 9865934	A1	19981203	AU 1998-65934	19980514
AU 746052	B2	20020411		
SG 71789	A1	20000418	SG 1998-1082	19980520
CA 2238230	AA	19981128	CA 1998-2238230	19980521
NO 9802324	A	19981130	NO 1998-2324	19980522
CN 1200875	A	19981209	CN 1998-109336	19980527
BR 9801705	A	20000425	BR 1998-1705	19980527
JP 11012103	A2	19990119	JP 1998-146825	19980528

PRIORITY APPLN. INFO.: US 1997-47966P P 19970528

OTHER SOURCE(S): MARPAT 130:21751

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Antibacterial agents

**Fungicides**

Wood preservatives

(controlled-release formulations of)

IT Adhesives

Caulking compositions

Construction materials

Cooling **water**

Cosmetics

Deodorants  
Detergents  
Disinfectants  
Disperse systems  
Drilling fluids  
Emulsions  
Hydraulic fluids  
Latex  
Leather  
Lubricants  
Mastics  
Medical goods  
Paints  
Sealing compositions  
Shampoos  
Textiles  
Varnishes

(controlled-release formulations of microbicidal formulation for)  
IT 52-51-7 101-20-2, 3,4,4'-Trichlorocarbanilide 137-26-8,  
Tetramethylthiuram disulfide 137-30-4, Zinc dimethyl dithiocarbamate  
148-79-8, 2-(4-Thiazolyl)benzimidazole 719-96-0, N-  
(Fluorodichloromethylthio)phthalimide 971-66-4 1085-98-9 1897-45-6,  
Tetrachloroisophthalonitrile 2634-33-5, 1,2-Benzisothiazolin-3-one  
2682-20-4, 2-Methyl-3-isothiazolone 3380-34-5,  
5-Chloro-2-(2,4-dichlorophenoxy)phenol 6317-18-6, Methylene bis  
thiocyanate 6440-58-0 10222-01-2, 2,2-Dibromo-3-nitrilopropionamide  
12122-67-7, Zinc ethylenebisdithiocarbamate 12427-38-2 13108-52-6,  
2,3,5,6-Tetrachloro-4-(methylsulfonyl)pyridine 13167-25-4 13463-41-7,  
Zinc 2-pyridinethiol-1-oxide 20018-09-1, Diiodomethyl-p-tolyl sulfone  
21564-17-0, 2-Thiocyanomethylthiobenzothiazole 26172-55-4 26530-20-1,  
2-Octyl-3-isothiazolone 26656-82-6, Copper thiocyanate 30007-47-7,  
5-Bromo-5-nitro-1,3-dioxane 35691-65-7, 1,2-Dibromo-2,4-dicyanobutane  
55406-53-6, 3-Iodo-2-propynyl butylcarbamate 55965-84-9  
64359-81-5, 4,5-Dichloro-2-Octyl-3-isothiazolone 64440-88-6  
67412-55-9, N,N-Dimethyldichlorophenylurea 82633-79-2 83364-12-9  
107846-11-7, Bromochlorodimethylhydantoin 216006-67-6  
RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL  
(Biological study); USES (Uses)  
(controlled-release formulation of)

L17 ANSWER 18 OF 25 USPATFULL

ACCESSION NUMBER: 1998:156931 USPATFULL  
TITLE: Personal treatment compositions and/or cosmetic  
compositions containing enduring perfume  
INVENTOR(S): Trinh, Toan, Maineville, OH, United States  
Bacon, Dennis Ray, Milford, OH, United States  
Chung, Alex Haejoon, West Chester, OH, United States  
Trandai, Angie, West Chester, OH, United States  
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United  
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5849310		19981215
APPLICATION INFO.:	US 1996-606882		19960226 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-326457, filed on 20 Oct 1994, now patented, Pat. No. US 5540853		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Venkat, Jyothsna		
LEGAL REPRESENTATIVE:	Aylor, Robert B.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3862		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . perfume provides a lasting olfactory sensation thus minimizing the need to use large amounts. Preferred compositions are liquid and comprise **water** as a carrier.

SUMM . . . hair). During a cleansing process, a substantial amount of perfume in the personal cleanser compositions is lost with the rinse **water** and in the subsequent drying. On the other hand, some products, especially leave-on and cosmetic products can leave a considerable. . .

SUMM (C) the balance comprising carrier, normally liquid, including **water**, C.sub.1 -C.sub.4 monohydric alcohols, C.sub.2 -C.sub.6 polyhydric alcohols, propylene carbonate, liquid polyalkylene glycols, and the like, and mixtures thereof,

SUMM . . . compositions since they require minimal material to provide long lasting effects even when the skin is in contact with the **water**, as when swimming. Personal treatment compositions such as deodorants, perfumes, colognes, suntan lotions, skin softening lotions, etc., which are meant. . .

SUMM (C) the balance comprising liquid carrier, normally comprising material selected from the group consisting of: **water**; C.sub.1 -C.sub.4 monohydric alcohols; C.sub.2 -C.sub.6 polyhydric alcohols; propylene carbonate; liquid polyalkylene glycols; and the like; and mixtures thereof,

SUMM . . . ingredients that can be used with the above named enduring perfume ingredients can be characterized by boiling point (B.P.) and octanol/**water** partitioning coefficient (P). The octanol/**water** partitioning coefficient of a perfume ingredient is the ratio between its equilibrium concentrations in octanol and in **water**. These other enduring perfume ingredients of this invention have a B.P., measured at the normal, standard pressure, of about 250.degree. C. or higher, preferably more than about 260.degree. C.; and an octanol/**water** partitioning coefficient P of about 1,000 or higher. Since the partitioning coefficients of the perfume ingredients of this invention have. . .

SUMM . . . of such cations. The cation M, of the anionic surfactant should be chosen such that the anionic surfactant component is **water** soluble. Solubility will depend upon the particular anionic surfactants and/or cations chosen. As an aid to determining appropriate mixtures of. . .

SUMM A suitable class of optional anionic deterative surfactants are aliphatic sulfonates such as represented by the **water**-soluble salts of the organic, sulfuric acid reaction products of the general formula (I):

SUMM . . . R.sub.2 is a lower alkyl group having from about 1 (preferred) to about 3 carbon atoms, and M is a **water**-soluble cation as hereinbefore described.

SUMM . . . product of fatty acids having from 10 to 22 carbon atoms esterified with isethionic acid and neutralized with sodium hydroxide; **water**-soluble salts of condensation products of fatty acids with sarcosine; and others known in the art.

SUMM . . . typically contains from about 8 to about 18 carbon atoms and in which at least one radical contains an anionic **water** solubilizing group, e.g., carboxy, sulfonate, sulfate, phosphate, or phosphonate. Examples of compounds falling within this definition are sodium 3-dodecylaminopropionate, sodium. . .

SUMM . . . and wherein one of the aliphatic substituents contains from about 8 to 18 carbon atoms and one contains an anionic **water** -solubilizing group, e.g., carboxy, sulfonate, sulfate, phosphate, or phosphonate. A general formula (VII) for these compounds is:

SUMM typically formulated as a liquid which additionally comprises from about 35% to about 70% **water**, wherein the ratio of said soap plus any synthetic surfactant, which is optionally added, to said free fatty acids plus. . .

SUMM The level of **water** in the above soap based liquid composition is typically from about 35% to about 70%, preferably from about 40% to.

SUMM The crystalline suspending agent can be incorporated into the shampoos hereof by solubilizing it into a solution containing **water** and the anionic sulfate surfactant at a temperature above the melting point of the suspending agent. The suspending agent is. . .

SUMM . . . desired viscosities. Suitable thickeners are listed in the Glossary and Chapters 3, 4, 12 and 13 of the Handbook of **Water**-Soluble Gums and Resins, Robert L. Davidson, McGraw-Hill Book Co., New York, N.Y., 1980, incorporated by reference herein.

SUMM . . . also be used as optional suspension agents include those that can impart a gel-like viscosity to the composition, such as **water** soluble or colloiddally **water** soluble polymers like cellulose ethers (e.g., hydroxyethyl cellulose), guar gum, polyvinyl alcohol, polyvinyl pyrrolidone, hydroxypropyl guar gum, starch and starch. . .

SUMM 3. **Water**

SUMM . . . about 89%, preferably from about 50% to about 85%, more preferably from about 60% to about 80%, by weight, of **water**.

SUMM . . . 8%, more preferably from about 0.2% to about 5%, by weight, of a dispersed phase, i.e., an emulsion, of a **water**-insoluble, nonvolatile, fluid hair conditioning agent. This component will be suspended in the form of droplets, which form a separate, discontinuous. . .

SUMM By "**water** insoluble" what is meant is that the material is not soluble in **water** (distilled or equivalent) at a concentration of 0.1%, at 25.degree. C.

SUMM The non-volatile, **water** insoluble silicone hair conditioning agent component of the present invention is nonvolatile and insoluble in the composition. It will be. . .

SUMM . . . oxide can also be used. The ethylene oxide and polypropylene oxide level must be sufficiently low to prevent solubility in **water** and the composition hereof.

SUMM . . . other region of the body, is applied to the hair or other region that has preferably been wetted, generally with **water**, and then rinsed off. Application to the hair typically includes working the composition through the hair such that most or. . .

SUMM . . . g to about 15 g of the composition, is applied to the body that has preferably been wetted, generally with **water**. Application to the body includes dispensing of the composition onto the hand, onto the body, or onto a washing implement,. . . develop lather. The lather can stand on the body for a length of time or can be rinsed immediately with **water**. Once the product is rinsed from the body the washing procedure can be repeated.

SUMM . . . in hair care compositions. The carriers can contain a solvent to dissolve or disperse the particular copolymer being used, with **water**, the C.sub.1 -C.sub.6 alcohols, and mixtures thereof being preferred; and **water**, methanol, ethanol, isopropanol, propylene carbonate, and mixtures thereof being more preferred. The carriers can also contain a wide variety of. . . and mixtures thereof. When the hair care composition is a hair spray, tonic, gel, or mousse the preferred solvents include **water**, ethanol, volatile silicone derivatives, and mixtures thereof. The solvents used in such mixtures can be miscible or immiscible with each. . . is a spray composition having relatively low levels of volatile organic solvents, such as alcohols, and relatively high levels of **water** (e.g., in excess of about 10%, by weight **water**). If such an emulsifying agent is used, it is preferably present at a level of from about 0.01% to about. . .

SUMM The carrier can be in a wide variety of forms. For example, emulsion carriers, including, but not limited to, oil-in-**water**, **water**-in-oil, **water**-in-oil-in-**water**, and oil-in-**water**-in-silicone emulsions, are useful herein. These emulsions can cover a broad range of viscosities, e.g, from about 100 cps to about. . .

SUMM Preferred cosmetically and/or pharmaceutically acceptable topical carriers include hydro-alcoholic systems and oil-in-**water** emulsions. When the carrier is a hydro-alcoholic system, the carrier can comprise from about 1% to about 99% of ethanol, isopropanol, or mixtures thereof, and from about 1% to about 99% of **water**. More preferred is a carrier comprising from about 5% to about 60% of ethanol, isopropanol, or mixtures thereof, and from about 40% to about 95% of **water**. Especially preferred is a carrier comprising from about 20% to about 50% of ethanol, isopropanol, or mixtures thereof, and from about 50% to about 80% of **water**. When the carrier is an oil-in-**water** emulsion, the carrier can include any of the common excipient ingredients for preparing these emulsions. In fine fragrances, the carrier. . .

SUMM Suitable types of deodorant actives include antimicrobial ingredients such as bactericides and **fungicides**. Exemplary deodorant actives include quaternary ammonium compounds such as cetyl-trimethylammonium bromide, cetyl pyridinium chloride, benzethonium chloride, diisobutyl phenoxy ethoxy ethyl. . .

SUMM . . . understood that the above formula is greatly simplified and is intended to represent and include compounds having coordinated and/or bound **water** in various quantities, as well as polymers, mixtures and complexes of the above. As will be seen from the above. .

SUMM (A) co-dissolving in **water**

SUMM . . . utilized in the present invention are also well known in the art. These materials utilize monohydric or polyhydric alcohols or **water** to solublize the antiperspirant active before it is incorporated into the product. The levels of these polar solvents are typically. . .

DETD . . . 20 20 20

Sodium Chloride

Add as needed to  
thicken to target viscosity

Ammonium Xylene

Add as needed to

Sulfonate.sup.(3)

thicken to target viscosity

**Water**

q.s. to 100%

Ingredients	Compositions				
	6	7	8	9	10

(ppm or %, by weight, of composition)

Sodium Laureth-3

13.5 13.5 16.0 8.0 . . 20 20 20

Sodium Chloride

Add as needed to  
thicken to target viscosity

Ammonium Xylene

Add as needed to

Sulfonate.sup.(3)

thicken to target viscosity

**Water**

q.s. to 100%

.sup.1 Ucare .RTM. Polymer JR30M, commercially available from Union Carbide Corporation.

.sup.2 A 40/60 blend of SE76. . .

DETD . . . -- -- --

Perfume G

-- -- 0.70 -- --

Perfume H

-- -- -- 0.70 --

Perfume I

-- -- -- -- 0.70

**Water**

to 100

Compositions

Ingredients	19	20	21
Amphoteric.sup.(1)	5.0	5.0	--
Sodium laureth-3 sulfate	10.0	10.0	--
APG.sup.(2)	2.5	2.5	--
Coconut diethanolamide	3.0	--	3.0
Titanium dioxide	--	--	0.10
Sodium benzoate	--	--	0.25
Glydant	--	--	0.13
Sodium EDTA	--	--	0.13
Mg sulfate heptahydrate	--	--	0.55
<b>Water</b>	to 100		

.sup.(1) Empigen .RTM. CDR 60 an aqueous mixture of about 26.5% cocoamphoacetate (the amphoteric of Formula I and/or. . . .  
DETD Compositions 14 to 18 are prepared by: forming a gel phase A of Merquat 550 and/or JR-400 in **water**; forming an aqueous phase B containing the remaining **water**-soluble, oil-insoluble ingredients; forming an oil phase C containing the Ceraphyl GA, myristic acid, coconut diethanolamide, and pearlescer; admixing phases A. . . . the perfume A. Compositions 19 to 21 are prepared by: forming a surfactant phase A containing a portion of the **water**, the anionic and amphoteric surfactants and the remaining **water**-soluble, oil-insoluble ingredients; forming an oil phase B containing the myristic acid, coconut diethanolamide, PEG(6) caprylic/capryl glycerate and oil; admixing B with A at about 40.degree.-50.degree. C.; adding the remaining **water**, preservative and perfume B; cooling to ambient temperature; and admixing the Ceraphyl GA. The average particle size of the emulsion. . . .

DETD . . . . 1.00 --

16) Perfume I  
-- -- -- -- 1.00

17) KOH or NaOH  
If necessary, adjust premix to pH = 7  
18) **Water** Balance to 100

Compositions					
Ingredients	30	31	32	33	34

1) Soap (K or Na)	20.00	25.00	15.00	15.00	11.00
-------------------	-------	-------	-------	-------	-------

30% Laurate  
30% Myristate  
25%. . . . 1.10 --

16) Perfume I  
-- -- -- -- 1.10

17) KOH or NaOH  
If necessary, adjust premix to pH = 7  
18) **Water** Balance to 100

DETD . . . . When the fatty acids are completely melted, reacting the fatty acid mixture to soap with KOH (45% solution) and the **water**;  
DETD The following oil-in-**water** emulsions contain no soap, have an average oil droplet size of about 30 microns, and have a pH from about.

DETD . . . . -- -- --  
Perfume G -- -- 1.00 -- --  
Perfume H -- -- -- 1.00 --

Perfume I    --    --    --    --    1.00  
**Water**        Balance to 100

Compositions				
Ingredients	40	41	42	43
Na Mg Laureth-				
3.6 sulfate	12.00	15.00	--	--
Lauroamphoacetate				
	--	6.00	10.00	8.00
Decylglucoside				
	2.50	. . .	0.10	
hydrate				
Perfume F	1.20	--	--	--
Perfume G	--	1.20	--	--
Perfume H	--	--	1.20	--
Perfume I	--	--	--	1.20
<b>Water</b>	Balance to 100			

DETD    Compositions 35 to 43 are prepared by: forming a gel phase A by dispersing Polyquaternium 10 in **water** at about 25.degree. C. with strong agitation. When phase A is thoroughly dispersed begin heating to about 45.degree.-50.degree. C. and. . .

DETD	. . .	0.20	0.20	
Citric acid		0.20	0.25	
Ethylene glycol distearate				
		1.50	--	
Pearlescer	--		0.43	
Polymer Jaguar C-14S				
		0.25	--	
Perfume E		0.25	--	
Perfume F	--		0.30	
<b>Water</b>	Balance to 100			

Compositions					
Ingredients	46	47	48	49	50
Myristic acid					
	--	--	7.51	1.50	--
Tallow fatty acid					
	--	--	6.51	. . .	--    --    0.80
Sodium benzoate					
	0.25	0.25	0.25	0.25	0.25
Disodium EDTA					
	0.13	0.13	0.13	0.13	0.13
DMDM Hydantoin					
	0.14	0.14	0.14	0.14	0.14
<b>Water</b>	Balance to 100				

Compositions				
Ingredients	51	52	53	54
Ammonium or sodium				
	12.00	5.00	--	--
laureth-3 sulfate				
Cocamidopropyl amine				
	--	5.00	2.50	2.00
oxide				
Na. . .	0.14			
Perfume G	0.90	--	--	--
Perfume H	--	0.80	--	--
Perfume I	--	--	0.80	--
Perfume E	--	--	--	0.80



**Water** Balance to 100

DETD Compositions 44 to 54 are prepared by: forming a gel phase A comprising **water** and polymer (e.g., Carbomer, Polyquaternium 10, Polyquaternium 11). When phase A is completely dispersed, begin heating to about 70.degree. C.. . .

DETD

Compositions				
Ingredients	55	56	57	58
<b>Water</b>	QS 100	QS 100	QS 100	QS 100

Ethanol (SCA 40)  
79.0 79.0 79.0 90.0

Copolymer.sup.(1)  
4.0 4.0 3.0 3.0

Perfume F 0.1. . .

DETD These products are prepared by first dissolving the polymer in the ethanol with stirring. The **water** and fragrance are then added with stirring. The resulting hair spray compositions can then be packaged in a nonaerosol spray. . .

DETD

Compositions				
Ingredients	59	60	61	62
<b>Water</b>	QS 100	QS 100	QS 100	QS 100

Ethanol 54.0 54.0 54.0 54.0

Copolymer of Example 58  
4.0 3.0 4.0 3.0

Perfume E. . .

DETD These products are prepared by first dissolving the polymer in the ethanol with stirring. The **water** and fragrance are then added with stirring. The resulting hair spray compositions can then be packaged in a nonaerosol spray. . .

DETD

Compositions				
Ingredients	63	64	65	
<b>Water</b>	QS 100	QS 100	QS 100	QS 100

Copolymer of Example 58  
3.00 2.50 3.50

Lauramide DEA 0.33 0.33 0.33

Sodium Methyl Oleyl Taurate  
1.67. . .

DETD These products are prepared by first dissolving the polymer in **water** with stirring. The remaining ingredients, except the propellant, are then added with stirring. The resulting mousse concentrate can then be. . .

DETD

Ingredients	Weight %
-------------	----------

Styling Agent Premix

Copolymer of Example 58  
1.00

Silicone Premix

Silicone gum, GE SE76.sup.(1)  
0.30

Octamethyl cyclotetrasiloxane  
1.70

Main Mix

**Water** QS100

Cetyl Alcohol 1.00

Quaternium 18.sup.(2)  
0.85

Stearyl Alcohol 0.70

Hydroxethyl cellulose	0.50
Ceteareth-20	0.35
Perfume E	0.20
Dimethicone copolyol	0.20
Citric Acid	0.13
Methylchloroisothiazolinone (and)	0.04
<b>methylisothiazolinone</b>	
Sodium Chloride	0.01

.sup.1 Commercially available from General Electric.

.sup.2 Dimethyl Di(Hydrogenated Tallow) Ammonium Chloride

DETD

Ingredient	Weight %
------------	----------

<b>Water</b>	QS100
Salicylic Acid	2.0
Copolymer from Example 58.sup.1	2.0
Ethanol (SDA 40)	40.0
Perfume F	0.05

DETD

Ingredient	Weight %
------------	----------

<b>Water, Purified</b>	QS100
Ibuprofen	2.0
Copolymer from Example 58.sup.1	2.0
Ethanol (SDA 40)	20.0
Perfume G	0.03

DETD

Ingredient	Weight %
------------	----------

Phase A

<b>Water</b>	qs 100
Copolymer from Example 58	2.00
Carbomer 934.sup.(1)	0.20
Carbomer 980.sup.(2)	0.15
Acrylic Acid Copolymer.sup.(3)	0.15

Phase B

PPG-20 Methyl Glucose Ether	2.00
-----------------------------	------

Distearate

Tocopheryl Acetate	1.20
Mineral. . . Oil	2.00
Stearyl Alcohol	1.00
Shea Butter	1.00
Cetyl Alcohol	1.00
Ceteareth-20	2.50
Ceteth-2	1.00
Ceteth-10	1.00

Phase C

DEA-Cetyl Phosphate	0.75
---------------------	------

Phase D

Dihydroxyacetone	3.00
------------------	------

Phase E

Butylene Glycol	2.00
DMDM Hydantoin (and)	
Iodopropynyl Butylcarbamate	0.25
Phase F	
Perfume H	1.00
Cyclomethicone	2.00

.sup.(1) Available as Carbopol .RTM. 934 from B. F. Goodrich.

.sup.(2) Available as Carbopol .RTM.. . . .

DETD In a suitable vessel the Phase A ingredients are dispersed in the **water** and heated to about 75.degree.-85.degree. C. In a separate vessel the Phase B ingredients are combined and heated to about. . . . emulsion is cooled to about 40.degree.-45.degree. C. with continued mixing. Next, in a separate vessel, the dihydroxyacetone is dissolved in **water** and the resulting solution is mixed into the emulsion. In another vessel, the Phase E ingredients are heated with mixing. . . .

DETD An oil-in-**water** emulsion is prepared by combining the following components utilizing conventional mixing techniques.

DETD

Ingredients	Weight %
-------------	----------

Phase A

<b>Water</b>	QS100
--------------	-------

Carbomer 954.sup.(1)	0.24
----------------------	------

Carbomer 1342.sup.(2)	0.16
-----------------------	------

Copolymer from Example VI.sup.(3)	1.75
-----------------------------------	------

Disodium EDTA	0.05
---------------	------

Phase B

Isoarachidyl Neopentanoate.sup.(4)	2.00
------------------------------------	------

PVP Eicosene Copolymer.sup.(5)	2.00
--------------------------------	------

Octyl Methoxycinnamate	7.50
------------------------	------

Octocrylene	4.00
-------------	------

Oxybenzone	1.00
------------	------

Titanium Dioxide	2.00
------------------	------

Cetyl Palmitate	0.75
-----------------	------

Stearoxytrimethylsilane	0.50
-------------------------	------

(and) Stearyl Alcohol.sup.(6)	
-------------------------------	--

Glyceryl Tribehenate.sup.(7)	0.75
------------------------------	------

Dimethicone	1.00
-------------	------

Tocopheryl Acetate	0.10
--------------------	------

DEA-Cetyl Phosphate	0.20
---------------------	------

Phase C

<b>Water</b>	2.00
--------------	------

Triethanolamine 99%	0.60
---------------------	------

Phase D

<b>Water</b>	2.00
--------------	------

Perfume I	0.05
-----------	------

Butylene Glycol	2.00
-----------------	------

DMDM Hydantoin (and)	0.25
----------------------	------

Iodopropynyl Butylcarbamate.sup.(8)	
-------------------------------------	--

dL Panthenol	1.00
--------------	------

Phase E

Cyclomethicone	1.00
----------------	------

.sup.(1) Available as Carbopol.sup.R 954 from B. F. Goodrich.

.sup.(2) Available as Carbopol.sup.R 1342 from B. . . .

DETD In a suitable vessel the Phase A ingredients are dispersed in the **water** and heated to about 75.degree.-85.degree. C. In a separate vessel the Phase B ingredients (except DEA-Cetyl Phosphate) are combined and. . . .

DETD

Ingredients	Weight %
-------------	----------

Water	QS100
Copolymer from Example 58	
	1.00
Glycerin	3.00
Cetyl Palmitate	3.00
Cetyl Alcohol	1.26
Quaternium-22	1.00
Glyceryl Monohydroxy Stearate	
	0.74
Dimethicone	0.60
Stearic Acid	0.55
Octyldodecyl Myristate	
	0.20

Perfume E. . . .

CLM What is claimed is:

11. The composition of claim 1 wherein the carrier comprises a material selected from the group consisting of: **water**; C.sub.1 -C.sub.4 monohydric alcohols; C.sub.2 -C.sub.6 polyhydric alcohols; propylene carbonate; liquid polyalkylene glycols; and mixtures thereof.

. . . 22, and mixtures thereof said composition being formulated as a liquid which additionally comprises from about 35% to about 70% **water**, wherein the ratio of fatty acid soap plus any optional synthetic surfactant to said free fatty acids plus glycol ester. . . .

L17 ANSWER 19 OF 25 USPATFULL

ACCESSION NUMBER: 1998:138451 USPATFULL

TITLE: Personal treatment compositions and /or cosmetic compositions containing enduring perfume

INVENTOR(S): Trinh, Toan, Maineville, OH, United States  
Bacon, Dennis Ray, Milford, OH, United States  
Trandai, Angie, West Chester, OH, United States

PATENT ASSIGNEE(S): The Proctor & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5833999		19981110
APPLICATION INFO.:	US 1996-745385		19960520 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-326620, filed on 20 Oct 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Venkat, Jyothsna		
LEGAL REPRESENTATIVE:	Aylor, Robert B.		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3503		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . hair). During a cleansing process, a substantial amount of perfume in the personal cleanser compositions is lost with the rinse **water** and in the subsequent drying. On the other hand, some products, especially leave-on and cosmetic products can leave a considerable. . . .

SUMM (C) the balance comprising carrier, normally liquid, including

**water**, C.sub.1 -C.sub.4 monohydric alcohols, C.sub.2 -C.sub.6 polyhydric alcohols, propylene carbonate, liquid polyalkylene glycols, and the like, and mixtures thereof,

SUMM . . . compositions since they require minimal material to provide long lasting effects even when the skin is in contact with the **water**, as when swimming. Personal treatment compositions such as deodorants, perfumes, colognes, suntan lotions, skin softening lotions, etc., which are meant. . .

SUMM (C) the balance comprising liquid carrier, normally comprising material selected from the group consisting of: **water**; C.sub.1 -C.sub.4 monohydric alcohols; C.sub.2 -C.sub.6 polyhydric alcohols; propylene carbonate; liquid polyalkylene glycols; and the like; and mixtures thereof,

SUMM An enduring perfume ingredient is characterized by its boiling point (B.P.) and its octanol/**water** partitioning coefficient (P). The octanol/**water** partitioning coefficient of a perfume ingredient is the ratio between its equilibrium concentrations in octanol and in **water**. The perfume ingredients of this invention have a B.P., measured at the normal, standard pressure, of about 250.degree. C. or higher, preferably more than about 260.degree. C.; and an octanol/**water** partitioning coefficient P of about 1,000 or higher. Since the partitioning coefficients of the perfume ingredients of this invention have. . .

SUMM . . . of such cations. The cation M, of the anionic surfactant should be chosen such that the anionic surfactant component is **water** soluble. Solubility will depend upon the particular anionic surfactants and/or cations chosen. As an aid to determining appropriate mixtures of. . .

SUMM A suitable class of optional anionic deterative surfactants are aliphatic sulfonates such as represented by the **water**-soluble salts of the organic, sulfuric acid reaction products of the general formula (I):

SUMM . . . R.sub.2 is a lower alkyl group having from about 1 (preferred) to about 3 carbon atoms, and M is a **water**-soluble cation as hereinbefore described.

SUMM . . . product of fatty acids having from 10 to 22 carbon atoms esterified with isethionic acid and neutralized with sodium hydroxide; **water**-soluble salts of condensation products of fatty acids with sarcosine; and others known in the art.

SUMM . . . typically contains from about 8 to about 18 carbon atoms and in which at least one radical contains an anionic **water** solubilizing group, e.g., carboxy, sulfonate, sulfate, phosphate, or phosphonate. Examples of compounds falling within this definition are sodium 3-dodecylaminopropionate, sodium. . .

SUMM . . . and wherein one of the aliphatic substituents contains from about 8 to 18 carbon atoms and one contains an anionic **water** -solubilizing group, e.g., carboxy, sulfonate, sulfate, phosphate, or phosphonate. A general formula (VII) for these compounds is:

SUMM typically formulated as a liquid which additionally comprises from about 35% to about 70% **water**, wherein the ratio of said soap plus any synthetic surfactant, which is optionally added, to said free fatty acids plus. . .

SUMM The level of **water** in the above soap based liquid composition is typically from about 35% to about 70%, preferably from about 40% to. . .

SUMM The crystalline suspending agent can be incorporated into the shampoos hereof by solubilizing it into a solution containing **water** and the anionic sulfate surfactant at a temperature above the melting point of the suspending agent. The suspending agent is. . .

SUMM . . . desired viscosities. Suitable thickeners are listed in the Glossary and Chapters 3, 4, 12 and 13 of the Handbook of **Water** -Soluble Gums and Resins, Robert L. Davidson, McGraw-Hill Book Co., New York, N.Y., 1980, incorporated by reference herein.

SUMM . . . also be used as optional suspension agents include those that can impart a gel-like viscosity to the composition, such as

**water** soluble or colloiddally **water** soluble polymers like cellulose ethers (e.g., hydroxyethyl cellulose), guar gum, polyvinyl alcohol, polyvinyl pyrrolidone, hydroxypropyl guar gum, starch and starch. . .

SUMM 3. **Water**

SUMM . . . about 89%, preferably from about 50% to about 85%, more preferably from about 60% to about 80%, by weight, of **water**.

SUMM . . . 8%, more preferably from about 0.2% to about 5%, by weight, of a dispersed phase, i.e., an emulsion, of a **water**-insoluble, nonvolatile, fluid hair conditioning agent. This component will be suspended in the form of droplets, which form a separate, discontinuous.

SUMM . . .  
By "**water** insoluble" what is meant is that the material is not soluble in **water** (distilled or equivalent) at a concentration of 0.1%, at 25.degree. C.

SUMM The non-volatile, **water** insoluble silicone hair conditioning agent component of the present invention is nonvolatile and insoluble in the composition. It will be. . .

SUMM . . . oxide can also be used. The ethylene oxide and polypropylene oxide level must be sufficiently low to prevent solubility in **water** and the composition hereof.

SUMM . . . other region of the body, is applied to the hair or other region that has preferably been wetted, generally with **water**, and then rinsed off. Application to the hair typically includes working the composition through the hair such that most or. . .

SUMM . . . g to about 15 g of the composition, is applied to the body that has preferably been wetted, generally with **water**. Application to the body includes dispensing of the composition onto the hand, onto the body, or onto a washing implement,. . . develop lather. The lather can stand on the body for a length of time or can be rinsed immediately with **water**. Once the product is rinsed from the body the washing procedure can be repeated.

SUMM . . . in hair care compositions. The carriers can contain a solvent to dissolve or disperse the particular copolymer being used, with **water**, the C.sub.1 -C.sub.6 alcohols, and mixtures thereof being preferred; and **water**, methanol, ethanol, isopropanol, propylene carbonate, and mixtures thereof being more preferred. The carriers can also contain a wide variety of. . . and mixtures thereof. When the hair care composition is a hair spray, tonic, gel, or mousse the preferred solvents include **water**, ethanol, volatile silicone derivatives, and mixtures thereof. The solvents used in such mixtures can be miscible or immiscible with each. . . is a spray composition having relatively low levels of volatile organic solvents, such as alcohols, and relatively high levels of **water** (e.g., in excess of about 10%, by weight **water**). If such an emulsifying agent is used, it is preferably present at a level of from about 0.01% to about. . .

SUMM The carrier can be in a wide variety of forms. For example, emulsion carriers, including, but not limited to, oil-in-**water**, **water**-in-oil, **water**-in-oil-in-**water**, and oil-in-**water**-in-silicone emulsions, are useful herein. These emulsions can cover a broad range of viscosities, e.g, from about 100 cps to about. . .

SUMM Preferred cosmetically and/or pharmaceutically acceptable topical carriers include hydro-alcoholic systems and oil-in-**water** emulsions. When the carrier is a hydro-alcoholic system, the carrier can comprise from about 1% to about 99% of ethanol, isopropanol, or mixtures thereof, and from about 1% to about 99% of **water**. More preferred is a carrier comprising from about 5% to about 60% of ethanol, isopropanol, or mixtures thereof, and from about 40% to about 95% of **water**. Especially preferred is a carrier comprising from about 20% to about 50% of ethanol, isopropanol, or mixtures thereof, and from about 50% to about 80% of **water**. When the carrier is an oil-in-**water** emulsion, the carrier can include any of the

common excipient ingredients for preparing these emulsions. In fine fragrances, the carrier. . .

SUMM Suitable types of deodorant actives include antimicrobial ingredients such as bactericides and fungicides. Exemplary deodorant actives include quaternary ammonium compounds such as cetyl-trimethylammonium bromide, cetyl pyridinium chloride, benzethonium chloride, diisobutyl phenoxy ethoxy ethyl. . .

SUMM . . . understood that the above formula is greatly simplified and is intended to represent and include compounds having coordinated and/or bound water in various quantities, as well as polymers, mixtures and complexes of the above. As will be seen from the above. .

SUMM (A) co-dissolving in water

SUMM . . . utilized in the present invention are also well known in the art. These materials utilize monohydric or polyhydric alcohols or water to solublize the antiperspirant active before it is incorporated into the product. The levels of these polar solvents are typically. . .

DETD . . . . 20 20 20  
Sodium Chloride Add as needed to thicken  
to target viscosity  
Ammonium Xylene Add as needed to thicken  
Sulfonate.sup.(3) to target viscosity  
Water q.s. to 100%

#### Compositions

	6	7	8	9	10
Sodium Laureth-3 Sulfate	13.5	13.5	16.0	8.0	16.0
Ammonium Lauryl	4.5	--	--	8.0	. . . 20 20 20
Sodium Chloride	Add as needed to thicken to target viscosity				
Ammonium Xylene	Add as needed to thicken				
Sulfonate.sup.(3)	to target viscosity				
Water	q.s. to 100%				

.sup.1 Ucare .RTM. Polymer JR30M, commercially available from Union Carbide Corporation.

.sup.2 A 40/60 blend of SE76. . . .

DETD	4.0	2.0	1.5	1.0	2.0
Preservative	0.15	0.15	0.15	0.15	0.15
Pearlescer	0.5	--	--	1.0	1.0
Perfume A	0.7	0.7	0.7	0.7	0.7
Water	to 100				

#### Compositions

Ingredients	19	20	21
Amphoteric.sup.(1)	5.0	5.0	--
Sodium laureth-3 sulfate	10.0	10.0	--
APG.sup.(2)	2.5	2.5	--
Coconut diethanolamide	3.0	--	3.0
Titanium dioxide	--	--	0.10
Sodium benzoate	--	--	0.25
Glydant	--	--	0.13
Sodium EDTA	--	--	0.13
Mg sulfate heptahydrate	--	--	0.55
Water	to 100		

.sup.(1) Empigen .RTM. CDR 60 -- an aqueous mixture of about 26.5% cocoamphoacetate (the amphoteric of Formula I. . . .

DETD Compositions 14 to 18 are prepared by: forming a gel phase A of Merquat 550 and/or JR-400 in **water**; forming an aqueous phase B containing the remaining **water**-soluble, oil-insoluble ingredients; forming an oil phase C containing the Ceraphyl GA, myristic acid, coconut diethanolamide, and pearlescer; admixing phases A. . . . the perfume A. Compositions 19 to 21 are prepared by: forming a surfactant phase A containing a portion of the **water**, the anionic and amphoteric surfactants and the remaining **water**-soluble, oil-insoluble ingredients; forming an oil phase B containing the myristic acid, coconut diethanolamide, PEG(6) caprylic/capryl glycerate and oil; admixing B with A at about 40.degree.-50.degree. C.; adding the remaining **water**, preservative and perfume B; cooling to ambient temperature; and admixing the Ceraphyl GA. The average particle size of the emulsion. . . .

DETD . . . . -- --  
 13) Perfume B -- -- 1.00 1.00 1.00  
 14) KOH or NaOH If necessary, adjust premix to pH = 7  
 15) **Water** Balance to 100

	Compositions				
	30	31	32	33	34
1) Soap (K or Na)	20.00	25.00	15.00		
				15.00	11.00

30% Laurate  
 . . . . 0.20 0.20  
 12) Perfume B 1.10 1.10 1.10 1.10 1.10  
 13) KOH or NaOH If necessary, adjust premix to pH = 7  
 14) **Water** Balance to 100

DETD . . . . When the fatty acids are completely melted, reacting the fatty acid mixture to soap with KOH (45% solution) and the **water**;  
 DETD The following oil-in-**water** emulsions contain no soap, have an average oil droplet size of about 30 microns, and have a pH from about.

DETD . . . . 0.13 0.13  
 Titanium dioxide  
 0.10 0.10 0.10 0.10 0.10  
 Mg Sulfate hepta-  
 0.10 0.10 0.10 0.10 0.10  
 hydrate  
 Perfume A 1.00 1.00 1.00 1.00 1.00  
**Water** Balance to 100

	Compositions			
	40	41	42	43
Na Mg Laureth-	12.00	15.00	--	--
3.6 sulfate				
Lauroamphoacetate	--	6.00	10.00	8.00
Decylglucoside	2.50.		EDTA	
	0.13	0.13	0.13	0.13
Titanium dioxide	0.10	0.10	0.10	0.10
Mg Sulfate hepta-	0.10	0.10	0.10	0.10
hydrate				



Perfume B     1.20     1.20     1.20   1.20  
**Water**         Balance to 100

DETD    Compositions 35 to 43 are prepared by: forming a gel phase A by dispersing Polyquaternium 10 in **water** at about 25.degree. C. with strong agitation. When phase A is thoroughly dispersed begin heating to about 45.degree.-50.degree. C. and. . .

DETD     . . .   0.20   0.20  
 Citric acid   0.20   0.25  
 Ethylene glycol distearate  
                  1.50   --  
 Pearlescer     --     0.43  
 Polymer Jaguar C-14S  
                  0.25   --  
 Perfume A       0.25   --  
 Perfume B       --     0.30  
**Water**             Balance to 100

	Compositions				
	46	47	48	49	50
Myristic acid	--	--	7.51	1.50	--
Tallow fatty acid	--	--	6.51	. . .	0.90 0.90 0.80
Sodium benzoate	0.25	0.25	0.25	0.25	0.25
Disodium EDTA	0.13	0.13	0.13	0.13	0.13
DMDM Hydantoin	0.14	0.14	0.14	0.14	0.14
<b>Water</b>	Balance to 100				

	Compositions			
	51	52	53	54
Ammonium or sodium	12.00	5.00	--	--
laureth-3 sulfate				
Cocamidopropyl amine	--	5.00	2.50	2.00
oxide				
Na. . . .	9.00			
Sodium benzoate	0.25	0.25	0.25	0.25
Disodium EDTA	0.13	0.13	0.13	0.13
DMDM Hydantoin	0.14	0.14	0.14	0.14
Perfume B	0.90	0.80	0.80	0.80
<b>Water</b>	Balance to 100			

DETD    Compositions 44 to 54 are prepared by: forming a gel phase A comprising **water** and polymer (e.g., Carbomer, Polyquaternium 10, Polyquaternium 11). When phase A is completely dispersed, begin heating to about 70.degree. C.. . .

DETD

	Compositions			
Ingredients	55	56	57	58
<b>Water</b>	QS	QS	QS	QS
	100	100	100	100
Ethanol (SCA 40)	79.0	79.0	79.0	90.0
Copolymer.sup.(1)	4.0	4.0	3.0	3.0
Perfume B	0.1	. . .		

DETD    These products are prepared by first dissolving the polymer in the ethanol with stirring. The **water** and fragrance are then added

with stirring. The resulting hair spray compositions can then be packaged in a nonaerosol spray. . .

DETD

Ingredients	59	60	61	62
-------------	----	----	----	----

<b>Water</b>	QS	QS	QS	QS
	100	100	100	100
Ethanol	54.0	54.0	54.0	54.0
Copolymer of Example 58	4.0	3.0	4.0	3.0

Perfume B. . .

DETD These products are prepared by first dissolving the polymer in the ethanol with stirring. The **water** and fragrance are then added with stirring. The resulting hair spray compositions can then be packaged in a nonaerosol spray. . .

DETD

Ingredients	63	64	65
-------------	----	----	----

<b>Water</b>	QS	QS	QS
	100	100	100
Copolymer of Example 58	3.00	2.50	3.50
Lauramide DEA	0.33	0.33	0.33
Sodium Methyl Oleyl Taurate	1.67		

DETD These products are prepared by first dissolving the polymer in **water** with stirring. The remaining ingredients, except the propellant, are then added with stirring. The resulting mousse concentrate can then be. . .

DETD

Ingredients	Weight %
-------------	----------

Styling Agent Premix

Copolymer of Example 58  
1.00

Silicone Premix

Silicone gum, GE SE76.sup.(1)  
0.30

Octamethyl cyclotetrasiloxane  
1.70

Main Mix

**Water** QS  
100

Cetyl Alcohol 1.00

Quaternium 18.sup.(2) 0.85

Stearyl Alcohol 0.70

Hydroxethyl cellulose 0.50

Ceteareth-20 0.35

Perfume A 0.20

Dimethicone copolyol 0.20

Citric Acid 0.13

Methylchloroisothiazolinone (and)  
0.04

**methylisothiazolinone**

Sodium Chloride 0.01

.sup.1 Commercially available from General Electric.

.sup.2 Dimethyl Di(Hydrogenated Tallow) Ammonium Chloride

DETD

Ingredient	Weight %
------------	----------

<b>Water</b>	QS
--------------	----

	100
Salicylic Acid	2.0
Copolymer from Example 58.sup.1	2.0
Ethanol (SDA 40)	40.0
Perfume B	0.05

---

DETD

Ingredients	Weight %
-------------	----------

---

<b>Water</b> , Purified	QS
	100
Ibuprofen	2.0
Copolymer from Example 58.sup.1	2.0
Ethanol (SDA 40)	20.0
Perfume B	0.03

---

DETD

Ingredients	Weight %
-------------	----------

---

Phase A

<b>Water</b>	qs
	100
Copolymer from Example 58	2.00
Carbomer 934.sup.(1)	0.20
Carbomer 980.sup.(2)	0.15
Acrylic Acid Copolymer.sup.(3)	0.15

Phase B

PPG-20 Methyl Glucose Ether	2.00
-----------------------------	------

Distearate

Tocopheryl Acetate	1.20
Mineral. . .	2.00
Stearyl Alcohol	1.00
Shea Butter	1.00
Cetyl Alcohol	1.00
Ceteareth-20	2.50
Ceteth-2	1.00
Ceteth-10	1.00

Phase C

DEA-Cetyl Phosphate	0.75
---------------------	------

Phase D

Dihydroxyacetone	3.00
------------------	------

Phase E

Butylene Glycol	2.00
DMDM Hydantoin (and)	0.25

**Iodopropynyl Butylcarbamate**

Phase F

Perfume B	1.00
Cyclomethicone	2.00

---

.sup.(1) Available as Carbopol .RTM. 934 from B. F. Goodrich.

.sup.(2) Available as Carbopol .RTM. 980. . . .

DETD In a suitable vessel the Phase A ingredients are dispersed in the **water** and heated to about 75.degree.-85.degree. C. In a separate vessel the Phase B ingredients are combined and heated to about. . . emulsion is cooled to about 40.degree.-45.degree. C. with continued

mixing. Next, in a separate vessel, the dihydroxyacetone is dissolved in **water** and the resulting solution is mixed into the emulsion. In another vessel, the Phase E ingredients are heated with mixing. . .

DETD An oil-in-**water** emulsion is prepared by combining the following components utilizing conventional mixing techniques.

DETD

Ingredients	Weight %
<hr/>	
Phase A	
<b>Water</b>	QS
	100
Carbomer 954.sup.(1)	0.24
Carbomer 1342.sup.(2)	0.16
Copolymer from Example VI.sup.(3)	1.75
Disodium EDTA	0.05
Phase B	
Isoarachidyl Neopentanoate.sup.(4)	2.00
PVP Eicosene Copolymer.sup.(5)	2.00
Octyl Methoxycinnamate	7.50
Octocrylene	4.00
Oxybenzone	1.00
Titanium Dioxide	2.00
Cetyl Palmitate	0.75
Stearoxytrimethylsilane	0.50
(and) Stearyl Alcohol.sup.(6)	
Glyceryl Tribehenate.sup.(7)	0.75
Dimethicone	1.00
Tocopheryl Acetate	0.10
DEA-Cetyl Phosphate	0.20
Phase C	
<b>Water</b>	2.00
Triethanolamine 99%	0.60
Phase D	
<b>Water</b>	2.00
Perfume B	0.05
Butylene Glycol	2.00
DMDM Hydantoin (and)	0.25
<b>Iodopropynyl Butylcarbamate.sup.(8)</b>	
dL Panthenol	1.00
Phase E	
Cyclomethicone	1.00

.sup.(1) Available as Carbopol.sup.R 954 from B. F. Goodrich.

.sup.(2) Available as Carbopol.sup.R 1342 from B. . .

DETD In a suitable vessel the Phase A ingredients are dispersed in the **water** and heated to about 75.degree.-85.degree. C. In a separate vessel the Phase B ingredients (except DEA-Cetyl Phosphate) are combined and. . .

DETD

Ingredients	Weight %
<hr/>	
<b>Water</b>	QS
	100
Copolymer from Example 58	1.00

Glycerin 3.00  
 Cetyl Palmitate 3.00  
 Cetyl Alcohol 1.26  
 Quaternium-22 1.00  
 Glyceryl Monohydroxy Stearate 0.74  
 Dimethicone 0.60  
 Stearic Acid 0.55  
 Octyldodecyl Myristate 0.20  
 Perfume. . .

L17 ANSWER 20 OF 25 USPATFULL

ACCESSION NUMBER: 1998:131402 USPATFULL  
 TITLE: Microemulsion and method  
 INVENTOR(S): Nowak, Milton, South Orange, NJ, United States  
 PATENT ASSIGNEE(S): Troy Corporation, Florham Park, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5827522		19981027
APPLICATION INFO.:	US 1996-741038		19961030 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Woodward, Michael P.		
ASSISTANT EXAMINER:	Brumback, Brenda G.		
LEGAL REPRESENTATIVE:	Banner & Witcoff, Ltd.		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
LINE COUNT:	621		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A **water** miscible composition consisting essentially of a solvating surfactant selected from the group consisting of an alkoxyated castor oil, an alkoxyated hydrogenated castor oil and an alkoxyated rosin, and a **biocidal** biologically active material dissolved in said solvating surfactant useful to prepare aqueous microemulsions, micellar solutions or molecular solutions of said **biocidal** biologically active material upon mixing with **water**.

SUMM . . . of microemulsions of biologically active, and often labile, materials. In a preferred aspect, this invention relates to the preparation of **biocidal** concentrates which can be used to prepare aqueous microemulsions of **fungicides** useful in the protection of wood surfaces or for incorporation into metal working fluids, and to prepare aqueous microemulsions for. . .

SUMM Microemulsions are dispersions of one liquid phase in a second immiscible phase. They can be **water** continuous (o/w) or oil continuous (w/o) where "oil" denotes an organic liquid (or liquids) of low **water** solubility. A unique property of microemulsions is that the interfacial tension between the two phases is very low. In the prior art, obtaining this low interfacial tension was thought to require very specific combinations of "oil" (**water** immiscible organic liquid) and surfactants and **water**. The particle size of the dispersed phase of a microemulsion is extremely small, usually less than 1000-2000 .ANG.. Since this. . .

SUMM . . . solubilization of an oil to give an o/w microemulsion occurs within a narrow composition range of oil, surfactant, cosurfactant and **water**. Some investigators have stressed the essential role played by a co-surfactant in the formation of a microemulsion. J Am. Chem. . . .

SUMM . . . Microemulsion Theory and Practice, Ed. L. M. Prince, Academic Press (1977) describing the system p-xylene, sodium lauryl sulfate, pentanol and **water**. In fact, the prior art indicates that the

use of several surfactants is usually required to produce a microemulsion. When one of the surfactants is soluble in the **water** phase and the other is soluble in the organic phase, each one has only a marginal effect on the other, . . . range, as defined by a phase diagram, multiphase regions exist. The consequence is that dilution of a microemulsion composition with **water** often leads to formation of a macroemulsion or multiphase, unstable systems. In a practical sense it is desirable to define a microemulsion composition that will remain clear and not phase separate when further diluted with **water**.

- SUMM An oil in **water** micellar solution can result when a small amount of "oil" is added to an aqueous solution of a surfactant and **water**. If the amount of surfactant is great in relation to the "oil" (say>5:1), the oil can migrate to the interior. . . . micelle can result in a clear micellar solution and the solution will very often retain clarity when further diluted in **water**. Because of the large excess of surfactant in such micellar solutions, the proportions of the various constituents in such compositions. . . .
- SUMM European Patent Application 0648414 describes the preparation of a microemulsion concentrate containing a nonpolar **water** immiscible solvent, at least one ethoxylated surfactant and at least one sulfated anionic cosurfactant. The concentrate is fully **water** dilutable to form a microemulsion.
- SUMM U.S. Pat. No. 5,444,078 describes mixtures of active ingredients that are substantially insoluble in **water** combined with a **water** immiscible solvent for the active ingredients, and a surfactant-cosurfactant system composed of sulfonated ionic surfactants and ethoxylated alcohols.
- SUMM WO 93/14630 describes the treatment of timber with microemulsions containing pesticides such as pyrethroids, or **fungicides** such as iodopropargyl butyl carbonate (IPBC) and/or propiconazole. The formulations include an oil, together with a surfactant, a co-surfactant and. . . .
- SUMM . . . is concerned with the preparation of liquid organic concentrates, and emulsions and microemulsions made therefrom, produced using as the active **biocidal** ingredients a very specific set of triazol **fungicides** and quaternary ammonium **fungicides**, and at least one benzimidazole **fungicide** mixed with one or more isothiazolones, together with a liquid carrying agent composed of an alkanol of up to six. . . .
- SUMM . . . directed to the use of siloxane based surfactants for the preparation of microemulsions of pyrethroids. It requires the use of **water**, oil, a surfactant and a co-surfactant.
- SUMM U.S. Pat. No. 5,037,653 (WO 88/07326) describes the preparation of ready-to-use microemulsions consisting of a pesticide, **water**, an anionic cosurfactant, a non-ionic surfactant and oil. It does not describe preparation of base solutions e.g., a concentrate, which can be diluted with **water** or added to **water** to form a microemulsion.
- SUMM U.S. Pat. No. 4,567,161 is directed to the preparation of microemulsions of herbicides, **fungicides**, etc., through the use of a combination of phospholipids and a co-surfactant consisting of an ethoxylated glycerin ester.
- SUMM . . . of prior art for the preparation of microemulsions. In the main, however, the prior art teaches that an oil or **water** -immiscible solvent, a surfactant, usually a non-ionic surfactant, and a co-surfactant (usually an anionic surfactant) are required.
- SUMM . . . art disclosures, the preparation of the microemulsion is carried out by separately adding each ingredient to the full complement of **water**, a procedure that often is not practical for industrial or agricultural applications.
- SUMM . . . involves the use of a single surfactant which simultaneously acts as a solvent for the biologically active, and generally labile **biocidal** compound, such as a **fungicide** (iodopropargyl

butyl carbamate (IPBC) for example), and which by itself yields a stable microemulsion, a micellar solution or a molecular solution on mixing with **water**. Such materials are referred to herein as "solvating surfactants." No co-surfactants are needed, and preferably no co-surfactants are employed to produce a stable, **water** miscible composition. Use of an additional **water** immiscible solvent, an oil, a non-polar solvent, etc., is also unnecessary, though such a constituent may be advantageous in some. . . .

SUMM Consequently, the present invention is directed, in a first aspect, to a **water** miscible composition or concentrate consisting essentially of a solvating surfactant selected from the group consisting of an alkoxyated castor oil, an alkoxyated hydrogenated castor oil and an alkoxyated rosin, and having a biologically active, **biocidal** material dissolved in said solvating surfactant. The present invention also is directed to a microemulsion, a micellar solution or a molecular solution of the biologically active **biocidal** material prepared simply by adding **water** to the above-described concentrate composition and mixing.

SUMM . . . . alkoxyated, e.g., ethoxyated hydrogenated castor oil and alkoxyated, e.g., ethoxyated rosin, are good solvents for a variety of generally labile **biocidally** active compounds including IPBC; benzisothiazolones; propaconazole; propiconazole (CAS-60207-90-1); permethryn (CAS-52645-53-1), [(3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane carboxylic acid (3-phenoxyphenyl)-methyl ester)]; deltamethrin (CAS-52918-63-5) [(3-(2,2-dibromoethenyl)-2,2-dimethylcyclopropane carboxylic acid. . . . lambda-cyhalothrin (CAS-91465-08-6); cyhexatin (CAS-13121-70-5); cyphenothrin (CAS-39515-40-7); endosulfan (CAS-115-29-7); (1,4,5,6,7,7-hexachloro 8,9,10-trinorborn-5-en-2,3-ylene bismethylene) sulfide (IUPAC); fenitrothion (CAS-122-14-5); and many other bactericides, **fungicides**, herbicides, algacides, acaricides, and the like, or combinations of two or more of these materials.

SUMM In its broadest aspect, the present invention is directed to preparing a microemulsion of any **biocidal** material that is **water** insoluble, but which can be dissolved in the solvating surfactant of the present invention.

SUMM To prepare the concentrate composition of the invention, the **biocidal** biologically active material, such as a pesticide, is dissolved in the solvating surfactant, such as an ethoxyated castor oil, at room temperature or at a slightly elevated temperature such as in the range of 50.degree.-75.degree. C. Solutions of the **biocidal** material in the solvating surfactant containing up to about 25% by weight of the **biocidally** active material may be prepared, depending upon the individual material. Combinations of two or more of the **biocidal** biologically active materials also may be dissolved in the aforementioned solvating surfactants to form a concentrate solution which yields a microemulsion, a micellar solution or a molecular solution when mixed with **water**. The aqueous compositions formed from mixing the concentrate with **water** are clear solutions that remain stable for periods up to two months or more. Microemulsions of this invention are generally. . . .

SUMM In the context of the present invention the "**biocidal** biologically active material" is any compound having microbiocidal activity, e.g., **fungicidal**, bactericidal and the like activity, herbicidal activity, e.g., algaecidal and the like activity, pesticidal activity, e.g., acaricidal, insecticidal, miticidal, and the like activity, or plant growth regulating activity. Generally, the solubility of the active material in **water** is less than 10,000 ppm and more often is less than 1000 ppm at room temperature. The **biocidally** active material also is soluble in the solvating surfactant in an amount of at least about 10 weight percent, and preferably at least about 15 weight percent. It is unlikely that the concentration of the **biocidally** active material in the solvating surfactant will exceed 40%. The actual limit on the

concentration of the **biocidally** active material in the solvating surfactant is determined by its solubility in the surfactant and the optional use of a co-solvent. More usually, the concentrate composition will contain from about 5 to 25 weight percent of the **biocidal** active material.

SUMM . . . the concentrate is enhanced. Without the added castor oil, a higher ratio of alkoxyated castor oil solvating surfactant to active **biocide** is required to yield a stable concentrate composition that can be mixed with **water** to provide a suitable microemulsion, micellar solution or molecular solution. With the added castor oil, the concentrate composition can contain a higher content of the **biocidal** material. Sources of castor oil based surfactants include: Cremophor El and Cremophor RH 410 (BASF); Trylon 5909 (Henkel); and Surfactol. . .

SUMM The concentrate composition generally will be mixed with **water** in an amount of from 1:1 parts by weight **water** to parts by weight concentrate up to about 1000:1 **water** to concentrate, and more usually in the range of from 10:1 to 100:1. Consequently, the concentration of **biocidal** material in the aqueous composition will generally fall between about 0.01 to 10 percent by weight and more usually 0.1. . .

SUMM The **water** miscible **biocidal** concentrate compositions of the present invention have potential application in a variety of circumstances including, but not limited to disinfectants, . . . processing chemicals, wood preservation, polymer latices, paint lazures, stains, mildewcides, hospital and medical antiseptics, medical devices, metal working fluids, cooling **water**, air washers, petroleum protection, paper treatment, pulp and paper slurries, paper mill slimicides, petroleum products, adhesives, textiles, pigment slurries, latexes, . . . pharmaceuticals, chemical toiletries, household laundry products, diesel fuel additives, waxes and polishes, oil field applications, and many other applications where **water** and organic materials come in contact under conditions which allow the growth of undesired microorganisms.

DETD . . . ethylene oxide) is warmed to 30.degree. C. while agitating. Iodopropargyl butyl carbamate (IPBC) (10 g) (CAS No. 55406-53-6), a well-known **fungicide**, is added with agitation. The mixture is stirred until the IPBC is completely dissolved. The solution then is allowed to. . . a clear pale amber viscous solution containing 10% by weight of IPBC. The solution (1.25 g) is dissolved in tap **water** (24 g.) to yield a clear microemulsion containing 0.5% IPBC.

DETD . . . the mixture is stirred until the IPBC is completely dissolved. This composition (1.0 g) was added with agitation to tap **water** (22.5 g) to yield a clear microemulsion containing 0.5% IPBC and 0.5% 2-(hydroxymethylamino) ethanol.

DETD This product (1.25 g.) was added to tap **water** (24 g.) while stirring to yield a clear microemulsion containing 0.5% 1,2-benzisothiazolin-3-one.

DETD This solution (1.25 g.) then was added to tap **water** (24 g.) to form a 0.25% active microemulsion.

DETD . . . stirred until solution was complete. The product was a light, amber solution. This solution (1.25 g.) was added to tap **water** (24 g.) to form a microemulsion containing 0.165% terbutryn and 0.34% of IPBC.

DETD The pasty solid was added to **water** (23.75 g.) with agitation to produce a clear solution containing 0.5% of IPBC.

DETD This product (1.1 g.) was dissolved in **water** (23.9 g.) to yield a clear, very pale amber solution containing 0.5% IPBC.

DETD The concentrated product (3.3 g) is added to 96.7 g of **water** and stirred to yield a clear aqueous solution containing 0.5% IPBC. There has been no sign of precipitation nor turbidity. . .

DETD This product (1.25 g.) was added to **water** (23.75 g.) to yield a clear solution containing 0.5% IPBC, and has remained stable for more than two months.



DETD Another portion of this product, (0.62 g.) was further added to **water** (24.4 g.) to yield a clear solution containing 0.25% IPBC, and has also remained stable for more than two months.

DETD 0.62 g of this solution was added to 24.4 g of tap **water**. The mixture was stirred until a perfectly clear microemulsion was obtained containing a total of 0.25% active ingredients--(30% Propiconazole, 70%.

DETD 1.25 g of the concentrated product, a clear pale amber liquid, was mixed with 23.75 g tap **water**. A clear **water**-like microemulsion was obtained containing 0.5% active ingredients. This microemulsion was stored at room temperature and has remained clear for 2. . . .

DETD 1.25 g of this product was added to 98.75 g **water** with rapid agitation to yield a clear solution containing 0.25% IPBC. This solution has remained clear for one month.

DETD 5 g of this product was added, with agitation, to 95 g **water** to yield a clear microemulsion.

DETD This clear liquid product (1.25 g.) was mixed with **water** (23.75 g.) to yield a clear solution containing 0.15% terbutryn and 0.35% IPBC. The solution has remained stable for more. . . .

DETD 33 g of this solution was placed in a 200 ml beaker and agitated while 67 g of **water** was added. At first the solution increased in viscosity, but quickly formed a clear microemulsion containing 5.0% IPBC.

DETD 3 g of this solution was added to 97 g **water** while stirring. A clear microemulsion was obtained containing 0.21% IPBC and 0.09% 8-Hydroxyquinoline. This microemulsion has remained clear after one. . . .

DETD 5 gm of this solution was added to 95 gm **water** and the mixture agitated to obtain a very slightly opalescent clear solution containing 0.5% propyl-4-hydroxy benzoate and 0.5% iodopropynyl butyl. . . .

DETD 4 gm of this solution were added to 96 g **water** to yield a clear microemulsion.

DETD 3 g of this solution was stirred into 97 g **water** to yield a clear microemulsion that remained stable for at least one month, and contains 0.3 % o-phenylphenol.

CLM What is claimed is:

1. A **water** miscible **biocidal** composition suitable for forming a microemulsion, a micellar solution or a molecular solution consisting of a solvating surfactant selected from the group consisting of an alkoxyated castor oil, an alkoxyated hydrogenated castor oil and an alkoxyated rosin, and a **biocidal** biologically active material dissolved in said solvating surfactant.
3. The composition of claim 1 wherein the **biocidal** biologically active material is selected from iodopropargyl butyl carbamate; benzisothiazolones; permethryn; terbutryn; propaconazole; tebuconazole; 8-hydroxyquinoline; propiconazole; deltamethrin; cypermethrin; chlorpyrifos; 2-(hydroxymethylamino). . . .
6. The composition of claim 5 wherein the **biocidal** active material comprises 5 to 25 weight percent of said composition.
7. An aqueous **biocidal** composition of a microemulsion, a micellar solution or a molecular solution prepared by mixing **water** and a **biocidal** composition consisting essentially of a solvating surfactant selected from the group consisting of an alkoxyated castor oil, an alkoxyated hydrogenated castor oil and an alkoxyated rosin, and a **biocidal** biologically active material dissolved in said solvating surfactant.
9. The aqueous composition of claim 8 wherein the **biocidal** biologically active material is selected from the **biocidal** biologically active material is selected from iodopropargyl butyl carbamate; benzisothiazolones; permethryn; terbutryn; propaconazole;

tebuconazole; propiconazole; deltamethrin; cypermethrin; chlorpyrifos; 8-hydroxyquinoline; 2-(hydroxymethylamino).

12. The aqueous composition of claim 10 wherein the **biocidal** active material comprises 5 to 25 weight percent of said composition.

13. A method for forming a microemulsion, a micellar solution or a molecular solution having a **biocidal** biological activity which comprises mixing with **water** a **biocidal** composition consisting essentially of a solvating surfactant selected from the group consisting of an alkoxyated castor oil, an alkoxyated hydrogenated castor oil and an alkoxyated rosin, and a **biocidal** biologically active material dissolved in said solvating surfactant.

15. The method of claim 13 wherein the **biocidal** biologically active material is selected from iodopropargyl butyl carbamate; benzisothiazolones; permethrin; terbutryn; propaconazole; tebuconazole; propiconazole; deltamethrin; cypermethrin; chlorpyrifos; 8-hydroxyquinoline; 2-(hydroxymethylamino).

16. The method of claim 15 wherein the **biocidal** active material comprises 5 to 25 weight percent of said microemulsion, micellar solution, or molecular solution.

IT 90-43-7, 2-Phenylphenol 1725-81-1 **2682-20-4**,  
2-Methyl-4-isothiazolin-3-one 20018-09-1, Diiodomethyl-p-tolyl sulfone  
26172-55-4, 5-Chloro-2-methyl-4-isothiazolin-3-one **55406-53-6**,  
IPBC 55406-54-7, Carbamic acid, cyclohexyl, 3-iodo-2-propynyl ester  
60207-31-0, Azaconazole 65184-12-5 94361-06-5, Cyproconazole  
128893-09-4  
(microemulsion of)

L17 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:67445 CAPLUS

DOCUMENT NUMBER: 126:71582

TITLE: Potentiation of **biocide** activity using an  
N-alkylheterocyclic compound

INVENTOR(S): Whittemore, Marilyn S.; Glover, Daniel E.; Rayudu, S.  
Rao

PATENT ASSIGNEE(S): Buckman Laboratories International, Inc., USA

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9638043	A1	19961205	WO 1996-US7677	19960528
W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML			
US 6034081	A	20000307	US 1995-453001	19950530
ZA 9604131	A	19961127	ZA 1996-4131	19960523
CA 2222864	AA	19961205	CA 1996-2222864	19960528
AU 9659315	A1	19961218	AU 1996-59315	19960528
EP 857021	A1	19980812	EP 1996-916627	19960528
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI			
CN 1190869	A	19980819	CN 1996-195490	19960528
BR 9608368	A	19990105	BR 1996-8368	19960528
JP 11506103	T2	19990602	JP 1996-536575	19960528

PRIORITY APPLN. INFO.:

TI    Potentiation of biocide activity using an N-alkylheterocyclic compound

(N-alkylheterocyclic compd.-contg. synergistic microbicides for)

## Antibacterial agents

## Wood preservatives

(synergistic; N-alkylheterocyclic compd.-contg. compns.)

1541-81-7D, N-Dodecylmorpholine, mixts. contg. 1704-28-5D,

N-Dodecyl-2,6-dimethylmorpholine, mixts. contg. 2634-33-5D,

1,2-Benzisothiazol-3(2H)-one, mixts. with N-alkylheterocyclic compds.

2682-20-4D, mixts. with N-alkylheterocyclic compds. 2687-96-9D,

N-Dodecyl-2-pyrrolidinone, mixts. contg. 2915-94-8 4303-67-7D,

N-Dodecylimidazole, mixts. contg. 5917-47-5D, N-Dodecylpiperidine,

mixts. contg. 10222-01-2D, 2,2-Dibromo-3-nitrilopropionamide, mixts.

with N-alkylheterocyclic compds. 20422-09-7D, mixts. contg.

25376-38-9D, Tribromophenol, mixts. with N-alkylheterocyclic compds.

26172-55-4D, 5-Chloro-2-methyl-4-isothiazolin-3-one, mixts. with

N-alkylheterocyclic compds. 55406-53-6D, IPBC, mixts. with

N-alkylheterocyclic compds. 79089-29-5D, mixts. contg. 152720-68-8D,

mixts. contg. 152720-69-9D, mixts. contg. 152720-70-2D, mixts. contg.

RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL

(Biological study); USES (Uses)

(synergistic microbicides)

ACCESSION NUMBER: 96:67677 USPATFULL

TITLE: Personal treatment compositions and/or cosmetic compositions containing enduring perfume

INVENTOR(S) : Trinh, Toan, Maineville, OH, United States  
Bacon, Dennis R., Milford, OH, United States  
Trandai, Angie, West Chester, OH, United States

PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

PATENT INFORMATION:

APPLICATION INFO.:

DOCUMENT TYPE:

FILE SEGMENT:

PRIMARY EXAMINER:

ASSISTANT EXAMINER:

LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . perfume provides a lasting olfactory sensation thus minimizing the need to use large amounts. Preferred compositions are liquid and comprise **water** as a carrier.

SUMM . . . hair). During a cleansing process, a substantial amount of perfume in the personal cleanser compositions is lost with the rinse

**water** and in the subsequent drying. On the other hand, some products, especially leave-on and cosmetic products can leave a considerable. . .

SUMM (C) the balance comprising carrier, normally liquid, including **water**, C.sub.1 -C.sub.4 monohydric alcohols, C.sub.2 -C.sub.6 polyhydric alcohols, propylene carbonate, liquid polyalkylene glycols, and the like, and mixtures thereof,

SUMM . . . compositions since they require minimal material to provide long lasting effects even when the skin is in contact with the **water**, as when swimming. Personal treatment compositions such as deodorants, perfumes, colognes, suntan lotions, skin softening lotions, etc., which are meant. . .

SUMM (C) the balance comprising liquid carrier, normally comprising material selected from the group consisting of: **water**; C.sub.1 -C.sub.4 monohydric alcohols; C.sub.2 -C.sub.6 polyhydric alcohols; propylene carbonate; liquid polyalkylene glycols; and the like; and mixtures thereof,

SUMM An enduring perfume ingredient is characterized by its boiling point (B.P.) and its octanol/**water** partitioning coefficient (P). The octanol/**water** partitioning coefficient of a perfume ingredient is the ratio between its equilibrium concentrations in octanol and in **water**. The perfume ingredients of this invention have a B.P., measured at the normal, standard pressure, of about 250.degree. C. or higher, preferably more than about 260.degree. C.; and an octanol/**water** partitioning coefficient P of about 1,000 or higher. Since the partitioning coefficients of the perfume ingredients of this invention have. . .

SUMM . . . of such cations. The cation M, of the anionic surfactant should be chosen such that the anionic surfactant component is **water** soluble. Solubility will depend upon the particular anionic surfactants and/or cations chosen. As an aid to determining appropriate mixtures of. . .

SUMM A suitable class of optional anionic deterative surfactants are aliphatic sulfonates such as represented by the **water**-soluble salts of the organic, sulfuric acid reaction products of the general formula (I):

SUMM . . . R.sub.2 is a lower alkyl group having from about 1 (preferred) to about 3 carbon atoms, and M is a **water**-soluble cation as hereinbefore described.

SUMM . . . product of fatty acids having from 10 to 22 carbon atoms esterified with isethionic acid and neutralized with sodium hydroxide; **water**-soluble salts of condensation products of fatty acids with sarcosine; and others known in the art.

SUMM . . . typically contains from about 8 to about 18 carbon atoms and in which at least one radical contains an anionic **water** solubilizing group, e.g., carboxy, sulfonate, sulfate, phosphate, or phosphonate. Examples of compounds falling within this definition are sodium 3-dodecylaminopropionate, sodium. . .

SUMM . . . and wherein one of the aliphatic substituents contains from about 8 to 18 carbon atoms and one contains an anionic **water** -solubilizing group, e.g., carboxy, sulfonate, sulfate, phosphate, or phosphonate. A general formula (VII) for these compounds is:

SUMM typically formulated as a liquid which additionally comprises from about 35% to about 70% **water**, wherein the ratio of said soap plus any synthetic surfactant, which is optionally added, to said free fatty acids plus. . .

SUMM The level of **water** in the above soap based liquid composition is typically from about 35% to about 70%, preferably from about 40% to. . .

SUMM The crystalline suspending agent can be incorporated into the shampoos hereof by solubilizing it into a solution containing **water** and the anionic sulfate surfactant at a temperature above the melting point of the suspending agent. The suspending agent is. . .

SUMM . . . desired viscosities. Suitable thickeners are listed in the Glossary and Chapters 3, 4, 12 and 13 of the Handbook of **Water**

-Soluble Gums and Resins, Robert L. Davidson, McGraw-Hill Book Co., New York, N.Y., 1980, incorporated by reference herein.

SUMM . . . also be used as optional suspension agents include those that can impart a gel-like viscosity to the composition, such as **water** soluble or colloiddally **water** soluble polymers like cellulose ethers (e.g., hydroxyethyl cellulose), guar gum, polyvinyl alcohol, polyvinyl pyrrolidone, hydroxypropyl guar gum, starch and starch. . .

SUMM 3. **Water**

SUMM . . . about 89%, preferably from about 50% to about 85%, more preferably from about 60% to about 80%, by weight, of **water**.

SUMM . . . 8%, more preferably from about 0.2% to about 5%, by weight, of a dispersed phase, i.e., an emulsion, of a **water**-insoluble, nonvolatile, fluid hair conditioning agent. This component will be suspended in the form of droplets, which form a separate, discontinuous.

SUMM By "**water** insoluble" what is meant is that the material is not soluble in **water** (distilled or equivalent) at a concentration of 0.1%, at 25.degree. C.

SUMM The non-volatile, **water** insoluble silicone hair conditioning agent component of the present invention is nonvolatile and insoluble in the composition. It will be. . .

SUMM . . . oxide can also be used. The ethylene oxide and polypropylene oxide level must be sufficiently low to prevent solubility in **water** and the composition hereof.

SUMM . . . other region of the body, is applied to the hair or other region that has preferably been wetted, generally with **water**, and then rinsed off. Application to the hair typically includes working the composition through the hair such that most or. . .

SUMM . . . g to about 15 g of the composition, is applied to the body that has preferably been wetted, generally with **water**. Application to the body includes dispensing of the composition onto the hand, onto the body, or onto a washing implement,. . . develop lather. The lather can stand on the body for a length of time or can be rinsed immediately with **water**. Once the product is rinsed from the body the washing procedure can be repeated.

SUMM . . . in hair care compositions. The carriers can contain a solvent to dissolve or disperse the particular copolymer being used, with **water**, the C.sub.1 -C.sub.6 alcohols, and mixtures thereof being preferred; and **water**, methanol, ethanol, isopropanol, propylene carbonate, and mixtures thereof being more preferred. The carriers can also contain a wide variety of. . . and mixtures thereof. When the hair care composition is a hair spray, tonic, gel, or mousse the preferred solvents include **water**, ethanol, volatile silicone derivatives, and mixtures thereof. The solvents used in such mixtures can be miscible or immiscible with each. . . is a spray composition having relatively low levels of volatile organic solvents, such as alcohols, and relatively high levels of **water** (e.g., in excess of about 10%, by weight **water**). If such an emulsifying agent is used, it is preferably present at a level of from about 0.01% to about. . .

SUMM The carrier can be in a wide variety of forms. For example, emulsion carriers, including, but not limited to, oil-in-**water**, **water**-in-oil, **water**-in-oil-in-**water**, and oil-in-**water**-in-silicone emulsions, are useful herein. These emulsions can cover a broad range of viscosities, e.g., from about 100 cps to about. . .

SUMM Preferred cosmetically and/or pharmaceutically acceptable topical carriers include hydro-alcoholic systems and oil-in-**water** emulsions. When the carrier is a hydro-alcoholic system, the carrier can comprise from about 1% to about 99% of ethanol, isopropanol, or mixtures thereof, and from about 1% to about 99% of **water**. More preferred is a carrier comprising from about 5% to about 60% of ethanol, isopropanol, or mixtures thereof, and from about 40% to about 95% of

**water**. Especially preferred is a carrier comprising from about 20% to about 50% of ethanol, isopropanol, or mixtures thereof, and from about 50% to about 80% of **water**. When the carrier is an oil-in-**water** emulsion, the carrier can include any of the common excipient ingredients for preparing these emulsions. In fine fragrances, the carrier. . .

SUMM Suitable types of deodorant actives include antimicrobial ingredients such as bactericides and **fungicides**. Exemplary deodorant actives include quaternary ammonium compounds such as cetyl-trimethylammonium bromide, cetyl pyridinium chloride, benzethonium chloride, diisobutyl phenoxy ethoxy ethyl. . .

SUMM . . . understood that the above formula is greatly simplified and is intended to represent and include compounds having coordinated and/or bound **water** in various quantities, as well as polymers, mixtures and complexes of the above. As will be seen from the above. .

SUMM (A) co-dissolving in **water**

SUMM . . . utilized in the present invention are also well known in the art. These materials utilize monohydric or polyhydric alcohols or **water** to solublize the antiperspirant active before it is incorporated into the product. The levels of these polar solvents are typically. . .

DETD . . . 20 20 20

Sodium Chloride

Add as needed to thicken to target viscosity

Ammonium Xylene

Add as needed to thicken to target

Sulfonate.sup.(3)

viscosity

**Water** q.s. to 100%

DETD . . . 20 20 20

Sodium Chloride

Add as needed to thicken to target viscosity

Ammonium Xylene

Add as needed to thicken to target

Sulfonate.sup.(3)

viscosity

**Water** q.s. to 100%

.sup.(1) Ucare .RTM. Polymer JR30M, commercially available from Union Carbide Corporation.

.sup.(2) A 40/60 blend of SE76. . .

DETD . . . 4.0 2.0 1.5 1.0 2.0

Preservative 0.15 0.15 0.15 0.15 0.15

Pearlescer 0.5 -- -- 1.0 1.0

Perfume A 0.7 0.7 0.7 0.7 0.7

**Water** to 100

DETD . . . 3.0

Titanium dioxide -- -- 0.10

Sodium benzoate -- -- 0.25

Glydant -- -- 0.13

Sodium EDTA -- -- 0.13

Mg sulfate heptahydrate -- -- 0.55

**Water** to 100

.sup.(1) Empigen .RTM. CDR 60 an aqueous mixture of about 26.5% cocoamphoacetate (the amphoteric of Formula I and/or. . .

DETD Compositions 14 to 18 are prepared by: forming a gel phase A of Merquat 550 and/or JR-400 in **water**; forming an aqueous phase B

containing the remaining **water**-soluble, oil-insoluble ingredients; forming an oil phase C containing the Ceraphyl GA, myristic acid, coconut diethanolamide, and pearlescer; admixing phases A. . . the perfume A. Compositions 19 to 21 are prepared by: forming a surfactant phase A containing a portion of the **water**, the anionic and amphoteric surfactants and the remaining **water**-soluble, oil-insoluble ingredients; forming an oil phase B containing the myristic acid, coconut diethanolamide, PEG(6) caprylic/capryl glycerate and oil; admixing B with A at about 40.degree.-50.degree. C.; adding the remaining **water**, preservative and perfume B; cooling to ambient temperature; and admixing the Ceraphyl GA. The average particle size of the emulsion. . .

DETD . . . -- --  
 13) Perfume B -- -- 1.00 1.00 1.00  
 14) KOH or NAOH If necessary, adjust premix to pH = 7  
 15) **Water** Balance to 100

DETD . . . 0.20 0.20  
 12) Perfume B 1.10 1.10 1.10 1.10 1.10  
 13) KOH or NAOH If necessary, adjust premix to pH = 7  
 14) **Water** Balance to 100

DETD . . . When the fatty acids are completely melted, reacting the fatty acid mixture to soap with KOH (45% solution) and the **water**;  
 DETD The following oil-in-**water** emulsions contain no soap, have an average oil droplet size of about 30 microns, and have a pH from about.

DETD . . . 0.13 0.13  
 Titanium dioxide  
                   0.10 0.10 0.10 0.10 0.10  
 Mg Sulfate hepta-  
                   0.10 0.10 0.10 0.10 0.10  
 hydrate  
 Perfume A 1.00 1.00 1.00 1.00 1.00  
**Water** Balance to 100

DETD . . . EDTA 0.13 0.13 0.13 0.13  
 Titanium dioxide  
                   0.10 0.10 0.10 0.10  
 Mg Sulfate hepta-  
                   0.10 0.10 0.10 0.10  
 hydrate  
 Perfume B 1.20 1.20 1.20 1.20  
**Water** Balance to 100

DETD Compositions 35 to 43 are prepared by: forming a gel phase A by dispersing Polyquaternium 10 in **water** at about 25.degree. C. with strong agitation. When phase A is thoroughly dispersed begin heating to about 45.degree.-50.degree. C. and. . .

DETD . . . 0.20 0.20  
 Citric acid 0.20 0.25  
 Ethylene glycol distearate  
                   1.50 --  
 Pearlescer -- 0.43  
 Polymer Jaguar C-14S 0.25 --  
 Perfume A 0.25 --  
 Perfume B -- 0.30  
**Water** Balance to 100

DETD . . . 0.90 0.90 0.80  
 Sodium benzoate  
                   0.25 0.25 0.25 0.25 0.25  
 Disodium EDTA 0.13 0.13 0.13 0.13 0.13  
 DMDM Hydantoin

	0.14	0.14	0.14	0.14	0.14
<b>Water</b>	Balance to 100				

DETD	9.00			
Sodium benzoate				
	0.25	0.25	0.25	0.25
Disodium EDTA	0.13	0.13	0.13	0.13
DMDM Hydantoin	0.14	0.14	0.14	0.14
Perfume B	0.90	0.80	0.80	0.80
<b>Water</b>	Balance to 100			

DETD Compositions 44 to 54 are prepared by: forming a gel phase A comprising **water** and polymer (e.g., Carbomer, Polyquaternium 10, Polyquaternium 11). When phase A is completely dispersed, begin heating to about 70.degree. C.. . .

DETD	Compositions			
Ingredients	55	56	57	58

<b>Water</b>	QS 100	QS 100	QS 100	QS 100
Ethanol (SCA 40)	79.0	79.0	79.0	90.0
Copolymer.sup.(1)	4.0	4.0	3.0	3.0
Perfume B	0.1			

DETD These products are prepared by first dissolving the polymer in the ethanol with stirring. The **water** and fragrance are then added with stirring. The resulting hair spray compositions can then be packaged in a nonaerosol spray. . .

DETD	Ingredients			
	59	60	61	62

<b>Water</b>	QS 100	QS 100	QS 100	QS 100
Ethanol	54.0	54.0	54.0	54.0
Copolymer of Example 58	4.0	3.0	4.0	3.0

DETD These products are prepared by first dissolving the polymer in the ethanol with stirring. The **water** and fragrance are then added with stirring. The resulting hair spray compositions can then be packaged in a nonaerosol spray. . .

DETD	Ingredients			
	63	64	65	

<b>Water</b>	QS 100	QS 100	QS 100
Copolymer of Example 58	3.00	2.50	3.50
Lauramide DEA	0.33	0.33	0.33
Sodium Methyl Oleyl Taurate	1.67		

DETD These products are prepared by first dissolving the polymer in **water** with stirring. The remaining ingredients, except the propellant, are then added with stirring. The resulting mousse concentrate can then be. . .

DETD	Ingredients	
	Weight %	

Styling Agent Premix	
Copolymer of Example 58	1.00
Silicone Premix	
Silicone gum, GE SE76.sup.(1)	



	0.30
Octamethyl cyclotetrasiloxane	1.70
Main Mix	
<b>Water</b>	QS100
Cetyl Alcohol	1.00
Quaternium 18.sup.(2)	0.85
Stearyl Alcohol	0.70
Hydroxethyl cellulose	0.50
Ceteareth-20	0.35
Perfume A	0.20
Dimethicone copolyol	0.20
Citric Acid	0.13
Methylchloroisothiazolinone (and)	0.04
<b>methyilisothiazolinone</b>	
Sodium Chloride	0.01

.sup.(1) Commercially available from General Electric.

.sup.(2) Dimethyl Di(Hydrogenated Tallow) Ammonium Chloride

#### DETD

Ingredient	Weight %
------------	----------

<b>Water</b>	QS100
Salicylic Acid	2.0
Copolymer from Example 58.sup.1	2.0
Ethanol (SDA 40)	40.0
Perfume B	0.05

#### DETD

Ingredients	Weight %
-------------	----------

<b>Water, Purified</b>	QS100
Ibuprofen	2.0
Copolymer from Example 58.sup.1	2.0
Ethanol (SDA 40)	20.0
Perfume B	0.03

#### DETD

Ingredients	Weight %
-------------	----------

#### Phase A

<b>Water</b>	qs 100
Copolymer from Example 58	2.00
Carbomer 934.sup.(1)	0.20
Carbomer 980.sup.(2)	0.15
Acrylic Acid Copolymer.sup.(3)	0.15

#### Phase B

PPG-20 Methyl Glucose Ether	2.00
Distearate	
Tocopheryl Acetate	1.20
Mineral. . . Oil	2.00
Stearyl Alcohol	1.00
Shea Butter	1.00
Cetyl Alcohol	1.00
Ceteareth-20	2.50
Ceteth-2	1.00

Ceteth-10	1.00
Phase C	
DEA-Cetyl Phosphate	0.75
Phase D	
Dihydroxyacetone	3.00
Phase E	
Butylene Glycol	2.00
DMDM Hydantoin (and)	
<b>Iodopropynyl Butylcarbamate</b>	
	0.25
Phase F	
Perfume B	1.00
Cyclomethicone	2.00

.sup.(1) Available as Carbopol .RTM. 934 from B. F. Goodrich.

.sup.(2) Available as Carbopol .RTM.. . . .

DETD In a suitable vessel the Phase A ingredients are dispersed in the **water** and heated to about 75.degree.-85.degree. C. In a separate vessel the Phase B ingredients are combined and heated to about. . . . emulsion is cooled to about 40.degree.-45.degree. C. with continued mixing. Next, in a separate vessel, the dihydroxyacetone is dissolved in **water** and the resulting solution is mixed into the emulsion. In another vessel, the Phase E ingredients are heated with mixing. . . .

DETD An oil-in-**water** emulsion is prepared by combining the following components utilizing conventional mixing techniques.

DETD

Ingredients	Weight %
-------------	----------

Phase A

<b>Water</b>	QS100
--------------	-------

Carbomer 954.sup.(1)	0.24
----------------------	------

Carbomer 1342.sup.(2)	
-----------------------	--

0.16

Copolymer from Exmaple VI.sup.(3)	
-----------------------------------	--

1.75

Disodium EDTA	0.05
---------------	------

Phase B

Isoarachidyl Neopentanoate.sup.(4)	
------------------------------------	--

2.00

PVP Eicosene Copolymer.sup.(5)	
--------------------------------	--

2.00

Octyl Methoxycinnamate	
------------------------	--

7.50

Octocrylene	4.00
-------------	------

Oxybenzone	1.00
------------	------

Titanium Dioxide	2.00
------------------	------

Cetyl Palmitate	0.75
-----------------	------

Stearoxytrimethylsilane	
-------------------------	--

0.50

(and) Stearyl Alcohol.sup.(6)	
-------------------------------	--

Glyceryl Tribehenate.sup.(7)	
------------------------------	--

0.75

Dimethicone	1.00
-------------	------

Tocopheryl Acetate	0.10
--------------------	------

DEA-Cetyl Phosphate	0.20
---------------------	------

Phase C

<b>Water</b>	2.00
--------------	------

Triethanolamine 99%	0.60
---------------------	------

Phase D

<b>Water</b>	2.00
--------------	------

Perfume B	0.05
-----------	------

Butylene Glycol	2.00
-----------------	------

DMDM Hydantoin (and)	0.25
----------------------	------

<b>Iodopropynyl Butylcarbamate.sup.(8)</b>	
--	--

dL Panthenol 1.00  
Phase E  
Cyclomethicone 1.00

.sup.(1) Available as Carbopol .RTM. 954 from B. F. Goodrich.  
.sup.(2) Available as Carbopol .RTM. 1342. . .  
DETD In a suitable vessel the Phase A ingredients are dispersed in the  
**water** and heated to about 75.degree.-85.degree. C. In a separate  
vessel the Phase B ingredients (except DEA-Cetyl Phosphate) are combined  
and. . .

DETD

Ingredients Weight %

<b>Water</b>	QS100
Copolymer from Example 58	1.00
Glycerin	3.00
Cetyl Palmitate	3.00
Cetyl Alcohol	1.26
Quaternium-22	1.00
Glyceryl Monohydroxy Stearate	0.74
Dimethicone	0.60
Stearic Acid	0.55
Octyldodecyl Myristate	0.20

Perfume B. . .

CLM What is claimed is:

11. The composition of claim 1 wherein the carrier comprises a material  
selected from the group consisting of: **water**; C.sub.1 -C.sub.4  
monohydric alcohols; C.sub.2 -C.sub.6 polyhydric alcohols; propylene  
carbonate; liquid polyalkylene glycols; and mixtures thereof.

. . . and mixtures thereof said composition being formulated as a liquid  
composition which additionally comprises from about 35% to about 70%  
**water**, wherein the ratio of said soap plus any optional  
synthetic surfactant to said free fatty acids plus glycol ester is. . .

L17 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:179223 CAPLUS

DOCUMENT NUMBER: 124:236544

TITLE: Preservation of **water**-based cooling  
lubricating oils [against microbial degradation]

AUTHOR(S): Anker, W.

CORPORATE SOURCE: BODE Chem. G.m.b.H. und Co., Hamburg, 22525, Germany

SOURCE: Mikrobielle Materialzerstoerung und Materialschutz  
(1995), 151-61. Editor(s): Brill, Holger. Fischer:  
Jena, Germany.  
CODEN: 62OVAJ

DOCUMENT TYPE: Conference; General Review

LANGUAGE: German

TI Preservation of **water**-based cooling lubricating oils [against  
microbial degradation]

AB A review, with 13 refs., of **biocides** and biostats for  
**water**-based [esp. metalworking] cooling lubricating oils. Classes  
of **biocides** discussed include: (1) aldehydes (formaldehyde and  
glutaraldehyde) and aldehyde precursors (O-formals and hemiformals;  
N-formals, amins, and hemiamins; and 1,3-propanediol-type compds.),  
isothiazolinones, and other compds.

ST review metalworking emulsion lubricant **biocide**; aldehyde  
metalworking lubricating oil **biocide** review

IT Aldehydes, uses  
Amins

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

IT Aminals

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(hemi-, classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

IT Lubricating oil additives

(**biocides**, classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

IT Acetals

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(formals, classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

IT Acetals

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(formals, hemi-, classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

IT Lubricating oil additives

(metalworking, **water**-based, **biocides** and biostats; classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

IT 50-00-0, Formaldehyde, uses 111-30-8, Glutaraldehyde

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FMU (Formation, unclassified); MOA (Modifier or additive use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)

(**biocide**; classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

IT 52-51-7, 2-Bromo-2-nitro-1,3-propanediol 126-11-4,  
Tris(hydroxymethyl)nitromethane 140-95-4, Dimethylolurea 2634-33-5,  
1,2-Benzisothiazol-3(2H)-one 2682-20-4 2832-19-1,  
N-Methylolchloracetamide 3586-55-8 3811-73-2, Sodium  
2-pyridinethiol-N-oxide 4719-04-4 5625-90-1, Methylenebis(morpholine)  
7779-27-3, 1,3,5-Triethyl-1,3,5-hexahydrotriazine 14548-60-8  
26172-55-4 26530-20-1 51200-87-4, 4,4-Dimethyloxazolidine  
55406-53-6, 3-Iodo-2-propynylbutyl carbamate 66204-44-2  
82633-78-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(**biocide**; classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

IT 10043-35-3D, Boric acid (H3BO3), alkanolamine esters

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(**biocides**; classes and action mechanisms of **biocides** and biostats for **water**-based metalworking cooling lubricating oils)

L17 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1992:53661 CAPLUS  
DOCUMENT NUMBER: 116:53661  
TITLE: Mold-inhibiting organosilicone compositions for building materials  
INVENTOR(S): Yamada, Kosaku; Iwatsubo, Haruhiko; Tanaka, Kunihiro  
PATENT ASSIGNEE(S): Sumitomo Seika Chemicals Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03191145	A2	19910821	JP 1989-329958	19891219
JP 2876068	B2	19990331		

PRIORITY APPLN. INFO.: JP 1989-329958 19891219

OTHER SOURCE(S): MARPAT 116:53661

AB The title compns. consist of **water** absorption-inhibiting organosilicones [e.g. YOSi(R1)(OY)2, where R1 = C1-18 alkyl, Ph, aralkyl; Y = H, Na, K] 1 and mold inhibitors [e.g. 2-(4-thiazolyl)benzimidazole, tetrathium disulfide] 0.0001-10 wt. parts. The compns. are painted on the building materials for preservation. Thus, a soln. contg. 15% methyltrimethoxysilane in iso-propanol and 0.1% 2-(4-thiazolyl)benzimidazole was painted on the newly constructed block wall at 500 g/m2. No mold growth was noted after 3 yr.

ST **fungicide** building material organosilicone; mold inhibitor construction material organosilicone; building material mold inhibition organosilicone; thiazolylbenzimidazole **fungicide** building material organosilicone

IT **Fungicides and Fungistats**  
(mold-inhibiting compn. contg. organosiloxanes and, for building materials)

IT 58-36-6 137-26-8 148-79-8, 2-(4-Thiazolyl)benzimidazole  
**2682-20-4**, 2-Methyl-4-isothiazolin-3-one **55406-53-6**

RL: BIOL (Biological study)  
(mold-inhibiting compns. contg. organosilicones and, for building materials)

L17 ANSWER 25 OF 25 USPATFULL

ACCESSION NUMBER: 89:53881 USPATFULL  
TITLE: Admixtures of iodopropargyl compounds and a formaldehyde donor  
INVENTOR(S): Rosen, Marvin, Totowa, NJ, United States  
Iandoli, Kenneth J., Hawthorne, NJ, United States  
PATENT ASSIGNEE(S): Lonza, Inc., Fair Lawn, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4844891		19890704
APPLICATION INFO.:	US 1988-151702		19880203 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Willis, Prince E.		
LEGAL REPRESENTATIVE:	Lewen, Bert J., Sternberg, Henry		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
LINE COUNT:	456		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . sealants, leather, rope, paper pump, plastics, fuel, oil, and

rubber and metal working fluids. The control of slime-producing bacteria and **fungi** in pump and paper mills and cooling towers is a matter of substantial commercial importance.

SUMM . . . While it is inexpensive and effective against a wide variety of bacteria, the rate of kill is slow in inhibiting **fungi** and yeasts.

SUMM On the other hand, compounds such as the halopropynyl carbamates are known for their **fungicidal** activity; however, they are extremely costly and, as a result, have only found applications in specialty areas where high costs. . .

SUMM . . . a trademark of Dow Chemical Company). It has the disadvantage of being a solid product which must be solubilized in **water** before it can be used in the end product. In aqueous solution it exhibits pH drift and causes formulation problems,. . .

SUMM Imidazolidinyl urea (Germall 115, a trademark of Sutton Laboratories) has virtually no **fungicidal** activity. The manufacturer of this product actually recommends that it be used with parabens to provide **fungicidal** action.

SUMM Admixtures of methylchloroisothiazolinone and **methylisothiazolinone** (Kathon CG, a trademark of Rohm & Haas) are unstable in the presence of organic sulfur compounds, ingredients commonly used. . .

SUMM 2-Bromo-2-nitropropane-1,3-diol (Lexgard Bronopol, a trademark of Inolex) has limited **fungicidal** activity and parabens are required to provide microbiological activity.

SUMM . . . methyl, ethyl and propyl) have limited bactericidal action. They are generally solubilized in oil since they are poorly soluble in **water**, leading to formulation difficulties for personal care and household products. They are often inactivated by commonly used materials such as. . .

SUMM . . . been discovered that synergistic combination of a selected formaldehyde donor and an iodopropargyl compound give both broad spectrum bactericidal and **fungicidal** activity suitable for use in personal care and household products. A particularly surprising aspect of the discovery is that an. . . of the costly halopropynyl carbamate can be combined with the formaldehyde donor to give a composition that has particularly outstanding **fungicidal** activity. This activity could in no way be predicted based on the known **biocidal** effects of the components individually.

SUMM . . . a total composition which contains as little as 1 part in 50 of the costly iodopropargyl compound will have a **fungicidal** activity exceeding that of an equal weight of the halopropynyl carbamate alone. This is particularly surprising since this enhancement is realized with formaldehyde donors which have essentially no **fungicidal** activity.

DETD Examples of compounds which may be used as the second component of the invention are the **fungicidally** active iodopropargyl derivatives. These include compounds derived from propargyl or iodopropargyl alcohols such as the esters, ethers, acetals, carbamates and. . .

DETD The compositions of the invention have been found effective to inhibit the growth of bacteria, **fungi** and yeasts. Specifically, **fungi** and yeasts which may be inhibited include *Aspergillus niger*, *Candida albicans*, *Lentinus lepideus*, *Gloeophyllum trabeum*, *Corioulus versicolor*, *Trichoderma viride*, *Alternaria*. . .

DETD

Personal Care Product

Traditional All-Purpose Shampoo

Ingredient Percent (Wt) Functionality

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Sodium lauryl sulfate

35.00

Surfactant

Cocodiethanolamide

4.00

Viscosity builder

Sodium chloride 0.80  
 Citric acid 0.17  
 Preservative q.s.  
**Water**, deionized 60.03

DETD The shampoo is prepared by dissolving the citric acid, sodium chloride, sodium lauryl sulfate and preservative in **water** and then adding the cocodiethanolamide, while stirring to insure homogeneity.

DETD . . . Care Product

Shampoo

Ingredient Percent (Wt) Functionality

Sodium lauryl ether	35.0	Surfactant
(2) sulfate		
TEA lauryl sulfate	25.0	Surfactant
Cocodiethanolamide	3.0	Foam booster
Hydrolyzed animal	1.0	Conditioner
protein		
Preservative q.s.		
<b>Water</b> , deionized	36.0	

DETD To formulate this shampoo, all of the ingredients except the preservative are added to **water** and heated to 65.degree. C. The preservative is added to achieve a clear solution while cooling to room temperature with. . .

DETD . . . sulfate trates

Cocoamphocarboxyglycinate	10.0	Amphoteric surfac-
Sorbitan monolaurate (20)	5.0	POE tant Eye irritation
		mitigant
Polyethylene glycol	1.3	Viscosity builder
6000 distearate		
Citric acid	0.3	
Preservative	q.s	
<b>Water</b> , deionized	63.36	

DETD In making this shampoo, the citric acid is dissolved in the **water**, the mixture heated and the remaining ingredients added in the order given. Polyethylene glycol 6000 distearate is dissolved at 75.degree.. . .

DETD . . . (Wt) Functionality

Stearyldimethylbenzyl-	8.0	Conditioner
ammonium chloride		
Hydrogenated starch	3.0	Humectant
hydrolysate		
Glyceryl monostearate, s.e.	1.0	Emulsifier,
		opacifier
Sorbitan tristearate (20)	0.5	POE Emulsifier
Potassium chloride	0.4	

Preservative        q.s.  
Water, deionized 87.1

DETD    In this formulation, half of the water is heated to 70.degree.  
C. and the glyceryl monostearate and POE-20 sorbitan tristearate are  
added with stirring. The quaternary salt,. . . and stirring continued  
for 15-30 minutes. In a separate vessel, the potassium chloride is  
dissolved in the remainder of the water, heated to 65.degree.  
C. and added to the rest of the batch. The emulsion is allowed to cool  
slowly to. . .

DETD    . . . Conditioner

Sodium lauryl sulfate	3.5	Emulsifier
Hydrogenated starch hydrolysate	5.0	Humectant
Polyquaternium-11	4.0	Holding power
Polyquaternium-10	0.7	Holding power
Lauryl alcohol (23) ethoxylate	0.5	Solubilizer
Preservative	q.s.	
Water, deionized	76.5	

DETD    The Polyquaternium-10 is dispersed in water with mild  
agitation and heated to 70.degree. C. The stearammonium chloride, sodium  
lauryl sulfate, hydrogenated starch hydrolysate, Polyquaternium-11 and  
the. . .

DETD

Personal Care Product

Water Repellent Sunscreen

Ingredient	Percent (Wt)	Functionality
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Phase A

Myristyl propionate	2.0	Emollient
Silicone fluid	10.0	Repellent
Octyl dimethyl	5.0	Sunscreen
p-aminobenzoic acid		
Glyceryl stearate	1.5	Emulsifier, opacifier
Stearic acid, triple pressed	3.5	Emulsifier for soap
Mink oil	5.0	Skin conditioner

Phase B

Hydrogenated starch	5.0	Humectant
hydrolysate		
Triethanolamine	1.0	Emulsifier for soap
Preservative	q.s.	
Water, deionized	66.7	

DETD    . . . Detergent

Ingredient	Percent (Wt)	Functionality
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Sodium lauryl ether	14.50	Surfactant
sulfate (60%)		
Sodium linear alkyl	28.50	Surfactant
sulfonate (60%)		
Cocodiethanolamide		



	4.50	Viscosity builder
Citric acid (50%)	0.15	
Preservative	q.s.	
Water, deionized	52.35	

DETD The ingredients are combined with **water** in the order listed and stirred after the addition of each until a clear solution is formed.

DETD	5.00	Foam booster
Cocodiethanolamide	2.00	Viscosity foam booster
Sodium linear alkylate sulfonate, 60%	15.00	Surfactant
Sodium alpha olefin sulfonate, 40%	25.00	Surfactant
Citric acid, anhydrous	0.25	
Preservative	q.s.	
Water	52.75	

DETD The citric acid is dissolved in the **water** and, with agitation, the remaining ingredients added in the order listed until the product is homogeneous.

DETD

Household Product

Fabric Softener

Ingredient	Percent (Wt)	Functionality
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Ditallowdiamido	4.0	Softener
methosulfate		
or		
Ditallowdimethyl	4.0	
ammonium chloride		
PEG stearate 400	1.5	Emulsifier and opacifier
Preservative	q.s.	
Water	96.0	

DETD The quaternary salts, the preservatives and the **water** are mixed until homogeneous.

DETD

Household Product

Solid Gel Room Deodorizer

Ingredient	Percent (Wt)	Functionality
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Tragacanth gum	15.0	Thickener
or		
Locust bean gum		
Preservative	q.s.	
Water	85.0	

DETD To prepare this product, the preservative is added to the **water** and then the thickener gradually added while stirring on low speed using an Oster blender. The speed is increased to. . .

DETD

Ingredient	Percent by Weight
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PEG-20 Glyceryl stearate	4.0
Glyceryl monostearate	6.0
Cetearyl alcohol (TA 16185)	1.5
Myristyl propionate	8.0
Glycerine, 99%	5.0
<b>Water</b> , deionized	75.5

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DETD To prepare the cream, the oil phase was first solubilized at 60.degree.-65.degree. C. The **water** phase (glycerin and **water**) was heated to the same temperature and added to the oil phase with mixing. The temperature was maintained at 48.degree.-52.degree.. . .

DETD . . .	Emulsifier	
Cetyl alcohol	1.0	Secondary emulsifier
Ethoxylated (5)	0.5	Emollient
lanolin alcohols		
Ethoxylated (25)	0.3	Emulsifier
lanolin alcohols		
Phase B		
Hydrogenated starch	5.0	Humectant
hydrolysate		
Triethanolamine (99%)	0.4	Emulsifier
Preservative	q.s.	
<b>Water</b> , deionized	85.3	
Phase C		
Hydrolyzed animal	1.0	Moisturizer
protein		

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IT 6440-58-0D, DMDMH, mixts. with halopropynyl derivs. 51229-78-8D, mixts. with halopropynyl derivs. **55406-53-6D**, 3-Iodo-2-propynylbutyl carbamate, mixts. with formaldehyde donors 78491-02-8D, mixts. with halopropynyl derivs. 118215-45-5D, mixts. with halopropynyl derivs. (preservatives for household products, synergistic)

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